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### **Darling Marine Center Local Shore Diving Guide**

University of Maine Scientific Diving Program

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# Darling Marine Center Local Shore Diving Guide



University of Maine Scientific Diving Program

# Table of Contents

Recommended Equipment List	2
Local Information	3
Recompression Chambers	3
General Emergency Action Plan	3-4
Documentation	4
Dive Sites	
DMC Pier	5-6
Kresge Point	7-8
Lowes Cove Mooring Field	9-10
Pemaquid Point	11-12
Rachel Carson Preserve	13-15
Sand Cove	16-17
Thread of life	18-19
Appendix	20

# Recommended Equipment List

- Dive flag
- DAN oxygen and first aid kit
- Spare tank
- Extra weights
- Save-a-dive kit
- Dive slate/underwater paper (recording purposes)

# Recommended Personal Equipment

- Exposure suit- minimum7mm wetsuit
  - o Booties
  - o Gloves
  - o Hood
  - o Wool socks
- Fins
- BCD
- Mask, Snorkel
- Weights
- Surface marker buoy
- Dive watch
- Dive computer
- Knife/cutting tool

### Local Information:

	Fire, Medical, Police	911
Emergency Dispatch		
	Lincoln County Emergency	(207)563-3200
	Center	
Nearest Hospital	Lincoln Health-Miles	(207)563-1234
	Campus	
USCG	Boothbay	(207)633-2661
Divers Alert Network	Emergency hotline	1-919-684-9111
	Medical information	1-919-684-2948
Diving Safety Officer	Christopher Rigaud	(207)563-8273

### **Recompression Chambers:**

In the event of a diving accident, call 911 and facilitate transport of victim to a hospital or medical facility. The medical staff will determine whether hyperbaric treatment is needed.

St. Mary's Regional	Lewiston, ME	(207)777-8331	Will NOT accept
Medical Center			divers after 4:30pm
St. Joseph's Hospital	Bangor, ME	(207)262-1550	Typically, available
			after hours
Wound and	Beverly, MA	(978)921-1210	
Hyperbaric Medicine			

## **Basic Emergency Information:**

See Appendix for the approved Emergency Action Plan by the UMaine DCB. This plan is also located on the UMaine Scientific Diving page under Documents and Forms.

### **Emergency response procedure:**

- Remove diver from water either to shore or onto a boat
- Contact emergency services: dial 911 or hail USCG on VHF channel 16
  - o State that there is a medical emergency and it is diving related
  - Convey current condition of the victim including notable symptoms
  - State the location and relevant directions if necessary
  - Request transportation
  - o If on a boat, proceed to nearest port/dock or coordinate with USCG.
- Provide basic life support to victim CPR and/or first aid as needed
- Provide 100% oxygen
  - o Demand mask OR non-rebreather mask OR resuscitation mask (10-15lpm)
- Conduct a field neurological exam and record results
- Contact UMaine Diving Safety Officer
  - If they are not reachable, call Diver's Alert Network (DAN) for guidance
    Divers Alert Network (DAN) Hotline: + 1-919-684-9111

### **Location of emergency kits and supplies:**

**AED** – black portable case (approximately 1ftX1ftX0.5ft), only brought if in a large group of 8 or more

Oxygen & First Aid – green portable case (approximately 3ftX2.5ftX1ft), located within the dive trailer or on beach adjacent to diver's preparation area

### **Information for first responders or hospital staff:**

This individual has been diving while breathing *compressed gas*. Injuries may not be outwardly apparent and could include severe neurological complications. As such, it is *critical* that thorough *medical evaluation* and *treatment* occurs *rapidly*. Providing **high-flow oxygen** (100% O<sub>2</sub>, 15lpm, non-rebreather mask) until a physician evaluates the individual has been shown to reduce length and severity of injuries.

### Information for examining physician:

Pressure related injuries can manifest in any diver who has been breathing compressed gas regardless of the depth of the dive. Decompression Illness (DCI) includes decompression sickness and arterial gas embolisms, either of which can affect any diver on any dive and has a wide variety of signs and symptoms. Diving medical experts are available through DAN for consultation.

### Documentation:

### **Documenting injury/illness and aid rendered:**

Individual medical files (kept in the dive leader satchel) and the daily slate with dive information should be brought with the injured diver to the medical facility for reference by the physician. Time and description of symptom onset, aid rendered prior to arrival of first responders/arrival at medical facility, and progression of symptoms should be recorded on the dive slate or other mode that can be transported with the injured diver. If a dive computer was used, bring with the diver to the medical facility.

Documentation papers for diver incident can be found in appendix and used to record diver information should incident occur.

### **Dive Sites**

# **DMC** Pier

Address: 193 Clarks Cove Road, Walpole, ME.

(GPS does may not bring you directly to this location. The driveway into the Darling Marine Center is marked with a sign. Proceed to the lower campus. The pier can be accessed by walking down the hill from the Dive Locker.)

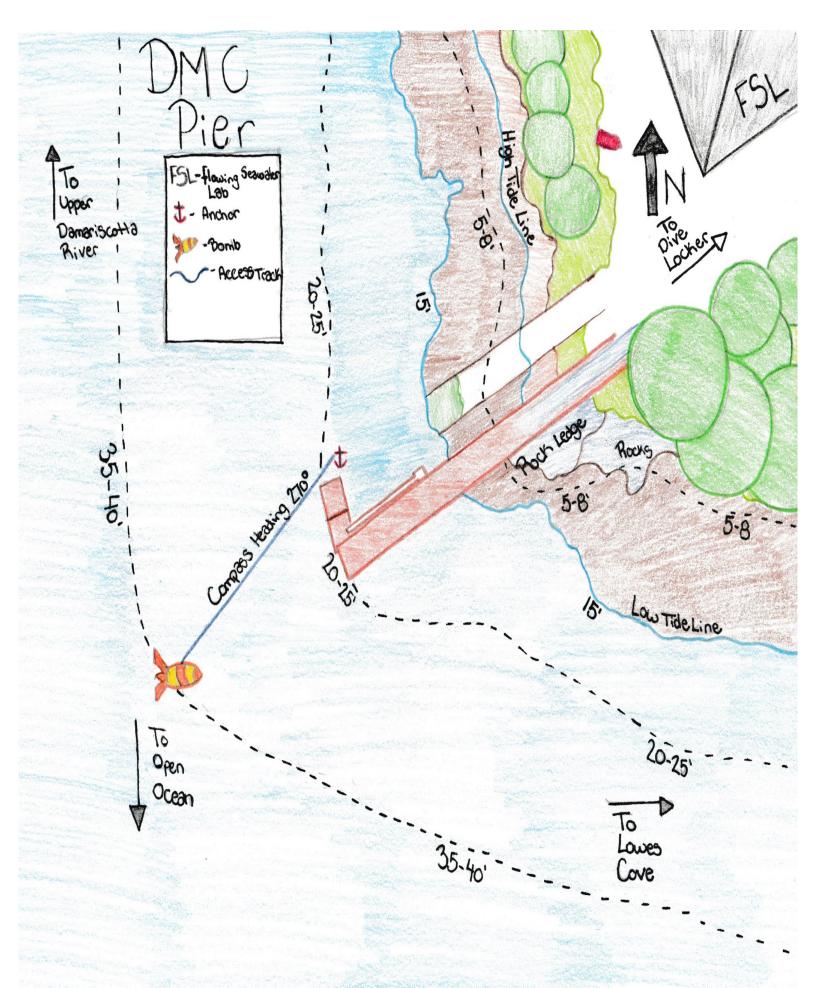
**Dive Site Description:** The DMC Pier is a prominent feature of the campus and serves as an excellent location for practicing skills, conducting refresher dives, or enjoying a relaxed recreational excursion. The area underneath the floating dock contains a small collection of previously used equipment and gear that now host a variety of sea life. There are two possible entries to the site: 1. Shore entry via the boat ramp; or 2. Dock entry via the pier (only after construction is complete). The end of the boat ramp leads to a gently sloping bottom with a sandy/silty substrate. The depth underneath the dock portion of the pier ranges from ~20-25ft (6-7.5m) depending on the tide height. There can be a lot of silt accumulation so care should be taken to maintain proper buoyancy and reduce contact with the substrate. Moving away from the pier, towards the center of the river, depth increases to about 45ft (14m). This dive site is within an active boating area so boat avoidance procedures should be reviewed prior to entering the water. The current can be quite strong in this area depending on the stage of the tide; therefore it is important to have a plan in place for how to respond if you become separated from your buddy or drift away from the site. A point of interest is visiting the "bomb", located nearby in the channel. To navigate to the spot, start at the corner of the dock and swim out, following 270 degrees on the compass.

Special note: The DMC Pier itself is currently off-limits to everyone except authorized personnel due to structural weaknesses. Construction on the pier is scheduled to begin during the summer of 2019 and diving in the adjacent waters may be restricted during that time.

#### **Additional Information:**

- All visitors are expected to sign in at the Admin. Bldg before continuing to lower campus.
- There are a variety of places to park around lower campus.
- There are restrooms located within several of the nearby buildings including the Dive Locker. Two showers are located within the Dive Locker.
- Be aware that classes, workshops, conferences, or lectures may be ongoing in several of the nearby buildings. Be respectful of other groups and keep noise to a minimum.
- Do not block access to the pier or the boat ramp.

- Lower campus of the Darling Marine Center.
- After coming down the hill, proceed straight and follow the road as it curves to the right passed several buildings. The road will turn sharply to the left, down a slope, with the boat ramp and pier at the bottom.
  - Send a person to meet the first responders at the bottom of lower campus hill, next to the "no wake" buoy, so they can be directed to the right location.



# Lowes Cove Mooring Field

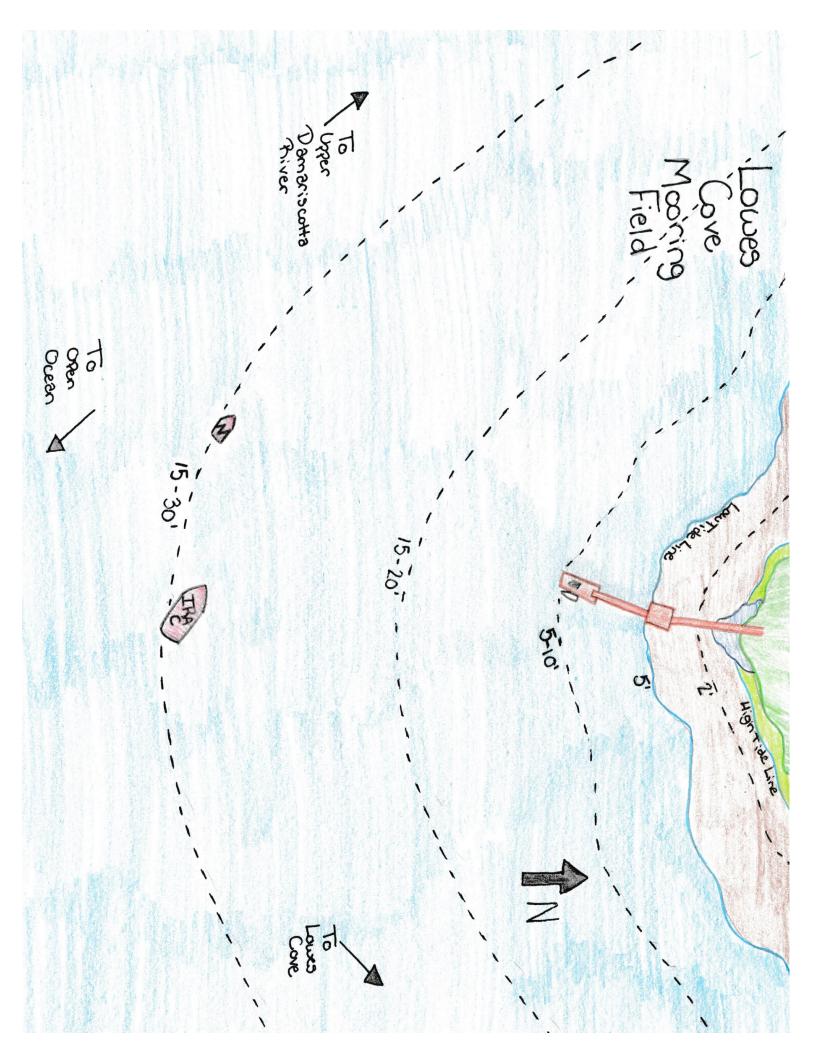
**Address:** 193 Clarks Cove Rd, Walpole ME (GPS does NOT bring you to this location. Keep going down the road until you see the sign for the University of Maine)

**Dive Site Description:** Accessed is by using the new pedestrian dock, this is the location of where the DMC moors their large vessels. We use this location typically for our rescue scenario and some makeup dives. Right off the dock, it is about 10ft (3m) at high tide and the bottom is mud with a gentle slope towards the middle of the river. Depending on the state of the tide there is either a ripping current or a very mild one. Depth between the dock and vessels is roughly 10-30ft (3-9m).

#### **Additional Information:**

- All visitors are expected to sign in at the Admin. Bldg before continuing to lower campus.
- There are a variety of places to park around lower campus.
- There are restrooms located within several of the nearby buildings including the Dive Locker. Two showers are located within the Dive Locker.
- Be aware that classes, workshops, conferences, or lectures may be ongoing in several of the nearby buildings. Be respectful of other groups and keep noise to a minimum.
- Do not block access to the pier or the boat ramp.

- Lower campus of the Darling Marine Center.
- Proceed down the dirt road passed the two parking lots, take a left on the dirt road just passed the parking lot and head down to the water/pedestrian dock.
- (Having a person meet the first responders at the bottom of lower campus hill, right by the "no wake" buoy to direct them can be helpful)



# Kresge Point

Address: 101 Pemaquid Loop Rd, New Harbor, ME 04554

**Dive Site Description:** This dive site is a rewarding spot for divers comfortable with a little challenge. It can be found off of Pemaquid Loop Rd, southwest to Pemaquid Lighthouse. There is a gravel parking lot for setup; a trailer is not recommended as this is a small lot. Divers will need to fully dress in the lot. With fins in hand, proceed to climb down the rock face towards the water. **Ensure you are diving at an incoming tide. Outgoing tide creates too much suction, making it almost impossible to make an exit.** Walk towards the end of the rocky ledge where there is a sheer drop (should only be 3-4ft (1-1.2m) height from the water). It is recommended to be holding your fins in one hand and using your other hand to hold your mask and regulator in place. After ensuring the entry is clear, make a giant stride into the water. Immediately swim away from the rock and then put on fins.

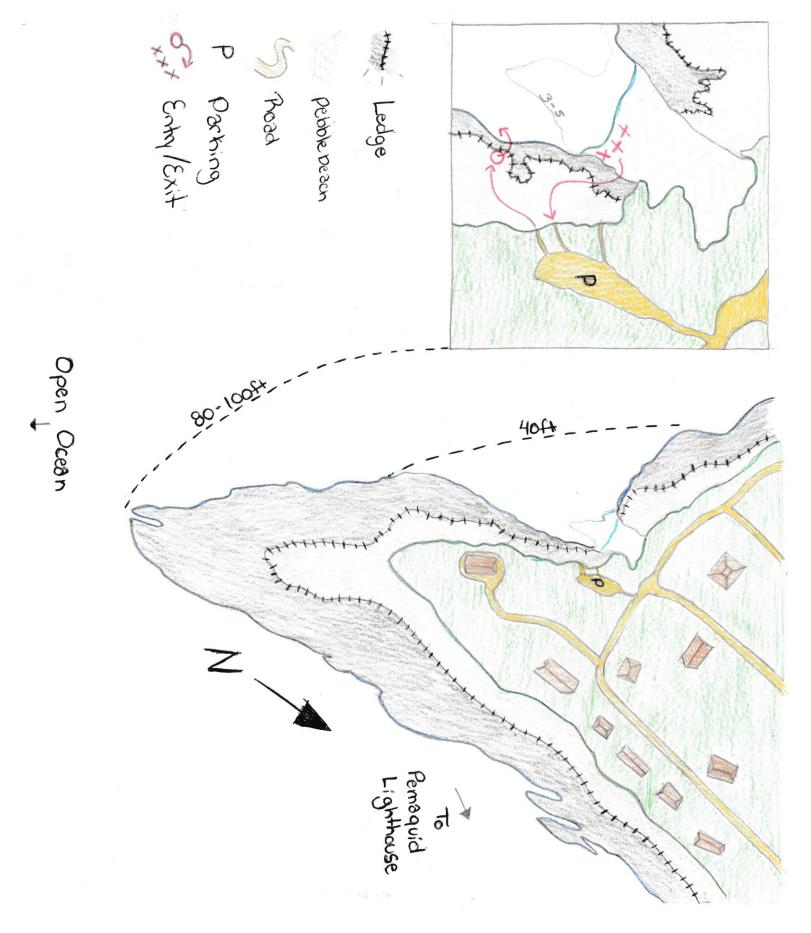
This site is astride Pemaquid point, with the open ocean just around the bend. The site is characterized by large boulders and rocky ledges, encouraging exquisite New England marine life. Deeper depths can be achieved, easily surpassing 80ft (24.4m) near the point to the south where a rock wall can be found. Be wary that currents are not too strong, as there is a high risk of divers being swept out to sea. Divers will need to be able to swim back and past the entry point.

The exit point is a pebble beach nestled in the crook of the cove, just slightly north of where divers jumped in. Swim onto the beach and work upwards the rock ledge towards the parking lot.

#### **Additional Information:**

- For minimal risk of exhaustion and being unable to compete against ocean currents, plan the dive around tidal movements. Dive around an incoming high tide, when there is enough water for safe entry. If conditions do not look safe, do not risk a dive. This site is highly subjective to weather and winds especially, as swell can become dangerous if ignored.
- Because of the hazards associated with this site, this is not a place recommended for beginner/novice divers.
- Great site for nitrox training dives because of its easy-access to depth.
- BEWARE of both ghost traps and active lobster lines, as entanglement, especially with a towed-along dive flag, are common. As usual, ensure divers have dive tools for safety.
- As with all of Maine's intertidal coastlines, rocks can be slick and present hazards for anyone traversing over them. Take care that each step has secure footing; take your time.

- If possible and safe, help diver to the parking lot. If not possible, try and tow the diver towards the beach and get them out of the water.
- Send a person to the entry point of the parking lot, where the driver first turned in, to lead first responders to where you are.



# Pemaquid Point Lighthouse

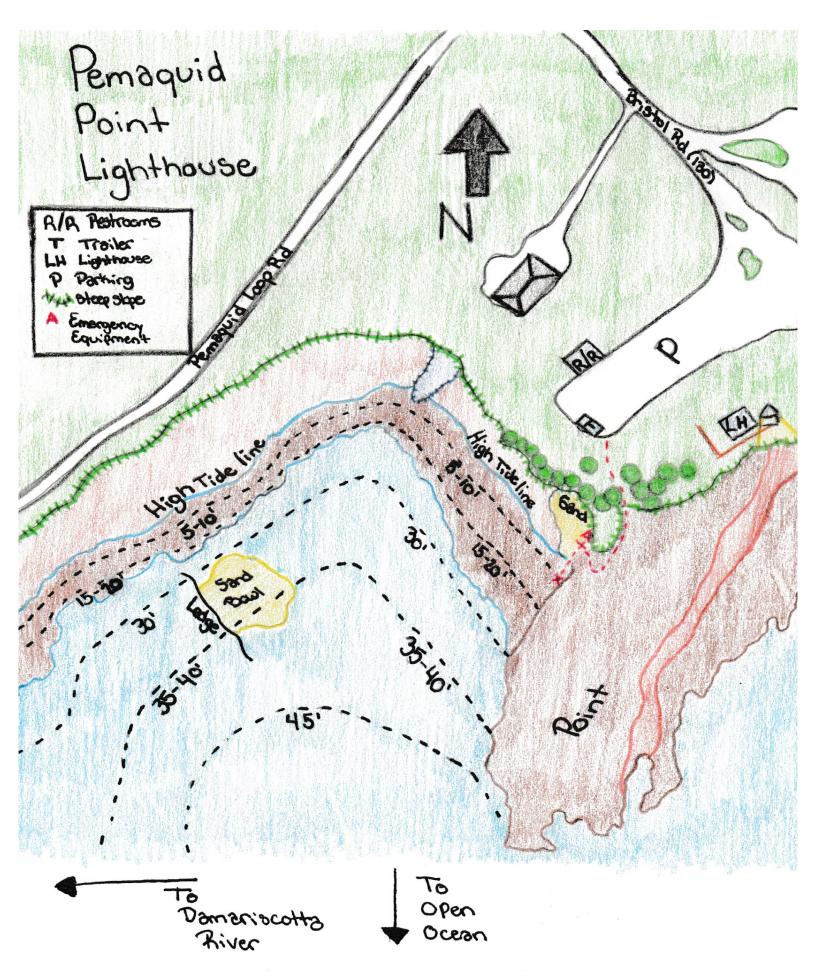
Address: 3115 Bristol Rd, Pemaquid, ME

**Dive Site Description:** This is a public recreation area. If traveling with the dive trailer, park the trailer on the far end of the parking lot at the edge of the grass, so it is out of the way of normal traffic. Students can either gear up next to the trailer and pack remaining gear into the trailer while diving or carry gear down to the beach to set up. Access to the beach is down a steep, rocky path known as the "goat trail", that leads to the sand/cobble beach. This trail becomes very slippery when wet and can be crowded if the site is busy with visitors. Once on the beach, the point of entry to water is located along the ledge. Easiest entry is at low tide because there are several large step downs. Beware of intertidal rockweed (*Ascophyllum nodosum*) as it makes the path slippery and hard to move around. Once you reach the end of the entry, it drops to about 8 feet (2.4 m) of water. This area has a lot of wave action so be prepared and watch for large waves. The cove is mostly boulders and ledge with a max depth of around 45 feet until you move out further to the end of the point where the depth is around 60-70 feet (18-21m). Visibility is typically about 20 feet. Looking out at open sea, to the right side of the cove is a large sand bowl that has a large, adjacent ledge on the ocean side of it.

#### **Additional Information:**

- Dive program has two passes to enter the park for free. Be sure these are displayed upon arrival
- This is a public area so be sure to keep your gear together and out of the way of tourists.
- There are public restrooms at this site.

- If possible, get the diver to the parking lot.
- If it is not safe to do so, put the diver in a safe place on the beach.
- Stay with the diver and have someone wait in the parking lot for first responders so they may direct them to the diver.



### Rachel Carson Preserve

Address: Rachel Carson Preserve, New Harbor, ME

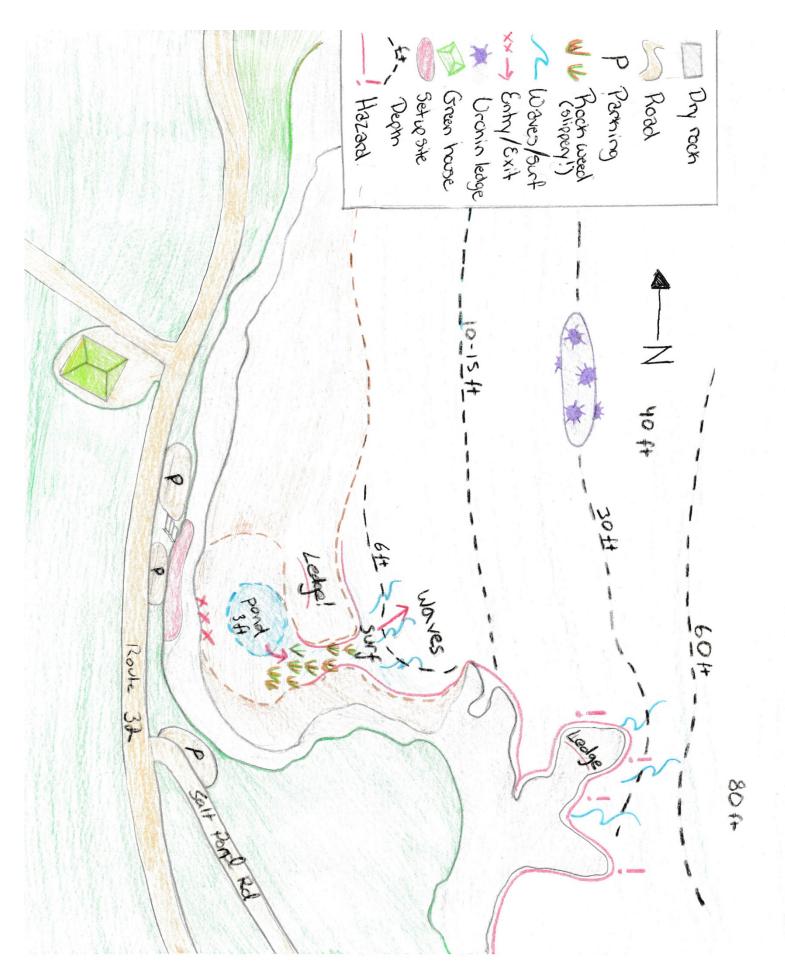
**Dive Site Description:** This site is aptly named for the saltwater "pond" that forms at low-tide. It is found alongside Route 32 and can be spotted by a wooden sign hanging up near the small entrance. The entrance is a cleared-out spot in the foliage, only a short walk away from Salt Pond Rd. If traveling by truck and trailer, parking near the preserve sign is a good spot but be sure to pull off to the side as far as possible as this route has moderate traffic, especially in the Summer. Access to the site is through the clearance via a set of stone stairs leading down to the shoreline itself. The site is characterized by its large pebble shoreline, reducing worries of sand but a hazard when walking across with heavy dive gear - be mindful to ensure secure footing. Students can carry equipment down onto the beach and set up on the cusp of the bushes; tide should not reach this high so gear will be safe throughout the day. For easiest access to diveable depth, try to dive during high tide. While it is possible to dive at low-tide, conditions may be slick from rockweed. The preserve has a notable ledge jutting out parallel to shore, and divers must go through a narrow passageway to get to the open water. This passage is covered in rockweed and is susceptible to both strong currents and sizeable waves.

Once passed the throughway, divers have two options, depending on what they want out of the dive. If you are interested in something shallowed (0-60 ft, 0-18.3m), it is best to dive without passing the furthest ledge to the right of the entry site. There are plenty of large boulders and even an urchin ledge, which is a little elusive. To find the urchin ledge, swim so you align yourself with the green house on the shoreline. Then, swim perpendicular from shore until you are at the cusp of the ledge on the right side of the dive site. Upon descending, there should be a boulder with urchins on its underside. For a deeper dive, swim past the ledge to reach an area with depths between 60-90ft (18.3-27.4m). Topography is less of rocks and boulders, and more of sandy slopes. This is typically where you will find the northern red sea anemone (*Urticina felina*).

#### **Additional Information:**

- Ensure diving conditions are safe before attempting a dive. Timing matters
- This is an open-water site that DOES HAVE BOAT TRAFFIC. Beware of lobstermen or tourist boats passing through the area.
- There are both active and ghost traps, and while it is required by UMaine standards, having a dive tool is critical in case of snaring or entanglement.
- There are no public restrooms here and sneaking a potty break in is tricky as you probably will see other tourists around.
- Look in nooks and crannies and you may be lucky enough to find some large nudibranchs among the intertidal.

- State clearly the name of the park: Rachel Carson Salt Pond Reserve in New harbor, Maine. There is another park with a similar name (National Wildlife Refuge) in Wells, Maine.
- If possible, get diver to shore or parking lot.
- Have someone stay with the diver and have another up on the side of the road to indicate to responders where the entrance is and to lead paramedics to the diver.



### Sand Cove

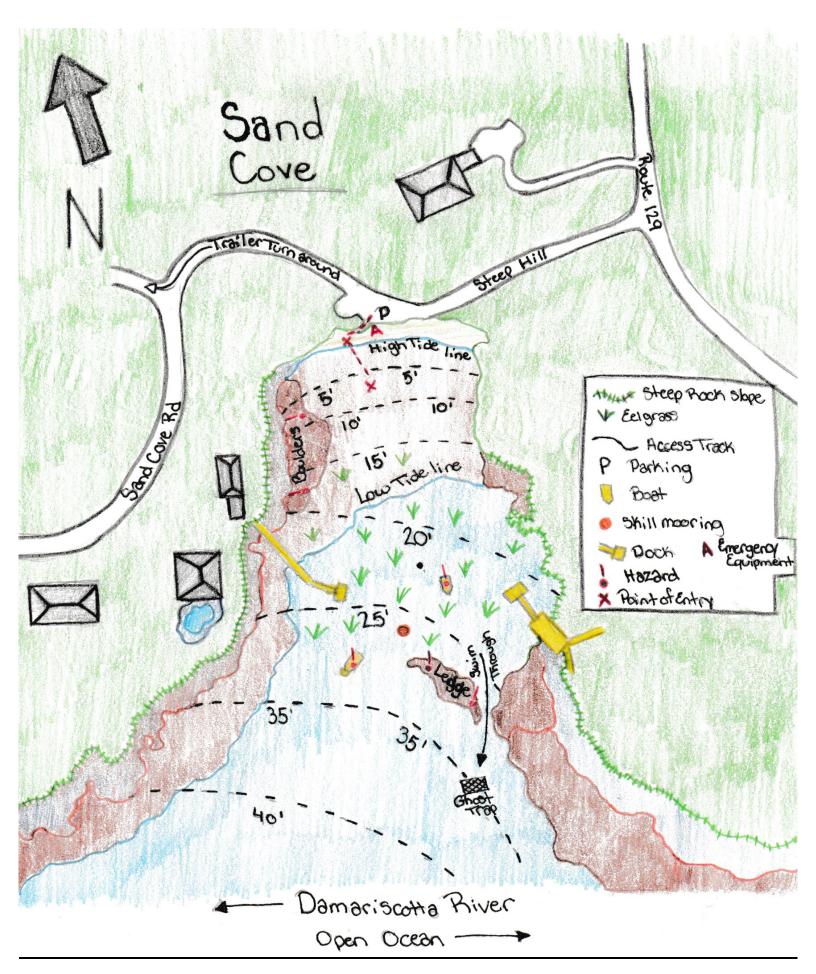
Address: Sand Cove Rd, South Bristol, ME.

**Dive Site Description:** This site has a bowl-shape, protected beach that is open to the public and may be narrow at high tide. The cove has a gradual slope out to sea and is typically calm relative to the nearby channel. The beach is sandy but has a cobble area where we set up our gear. Near the mouth of the cove and on the left side (looking outward to sea) is a ledge that rises to about 12 feet (3.7 meters) of depth at low tide. There is a large adjacent rock that creates a channel to swim through. The substrate is sandy with dense eelgrass cover in the center of the cove, around 15 feet (4.5 m) in depth. There are three active moorings in the cove, so boat avoidance procedures should be reviewed. Maximum depth ranges from approximately 18 feet (5.5 m) at low tide to approximately 35 feet (10.6 m) at high tide.

#### **Additional Information:**

- Take care when pulling onto Sand Cove Rd as the road is narrow and only appropriate for one car at a time. Honk several times before driving down the hill and proceed with caution. If you have a trailer and a trailing vehicle, let the trailer go first and have the following vehicle wait at the top of the hill to prevent any other vehicles from driving down the road until the trailer has turned around and parked. The vehicle hauling the trailer will need to park as far up into the parking area as possible to allow for other vehicles to park behind it (next to the bushes).
- If setting up equipment on the beach, be sure to place the staging area ABOVE the high tide mark.
- There are no public restrooms at this site.

**Directions for first responders:** From the South Bristol Fire Department, continue south on 129; take a right onto Sand Cove Road; dive site is located at the bottom of the hill; parking on the left.



## Thread of Life

Address: End of East Side Rd, South Bristol ME

**Dive Site Description:** Shore access to this dive site is through a private residence. The UMaine Dive Program has a long-term relationship with the owner and has established permission to access the site. Confirm with Program Manager/Diving Safety Officer prior to visiting this site.

To reach the site: walk directly across the yard from the end of the driveway to a set of wooden stairs, that lead to a cobble beach. This is a relatively exposed site, with a semi-bowl shape and a set of small islands across the channel that provide some shelter from waves and swell. The entry point is through a subtle channel in the rockweed that is best navigated at high tide. Looking out from the wooden stairs, the entry point is on the left-hand side, adjacent to the ledge. Care should be taken during entry as there may be swell and the cobbles can be quite slippery. As you approach the end of the ledge, there is a drop off into 5-8 feet (1.5-2.5m) of water (at low tide). Depth within the cove ranges from 10-15 feet (3-4.5 m) and increases to ~30 feet (9 m) with mostly boulders and sand as you move outward. There is a wall shaped ledge that drops to about 45 feet (14 m) with a muddy bottom. The bottom of the ledge has a "cave-like" feeling because it curves inwards, creating a slight overhang that you can swim under. The wall is the best navigational tool at this site because swimming over into the shallow side leads you towards shore.

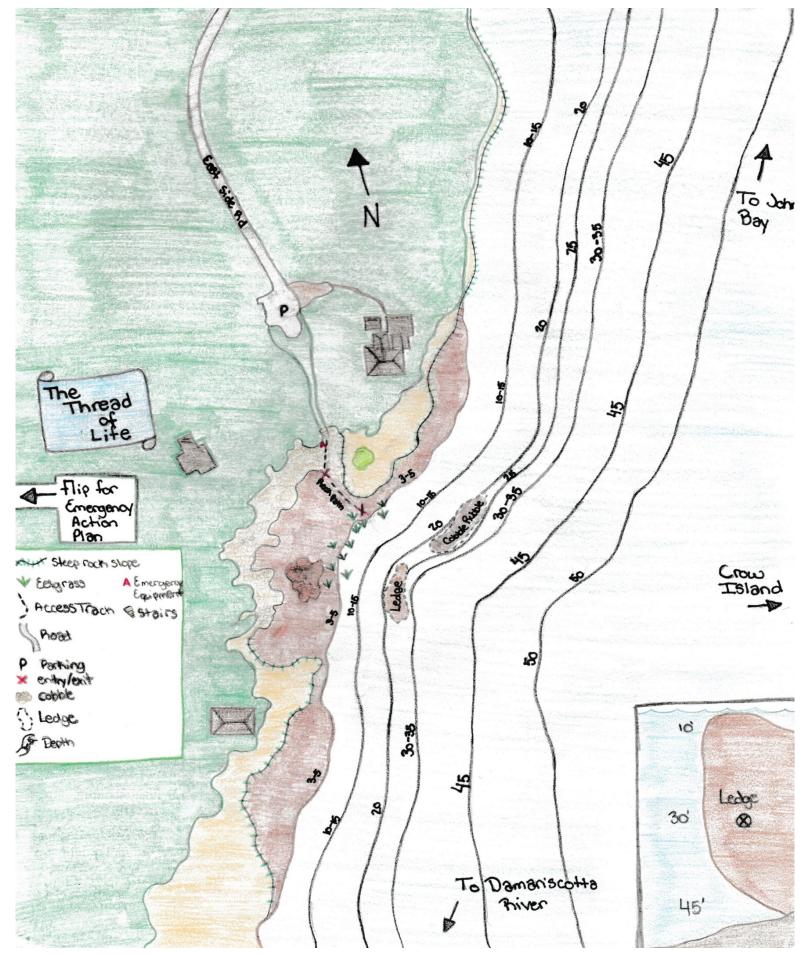
#### **Additional Information:**

- Because this is a private residence, if you are diving at this location, please be sure to go up to the house and introduce yourself, state why your there and that we have permission from the owner to be there. The program has a letter from the owner stating we have permission. Please be respectful so future teams may be allowed to use this site.
- Park in a way that allows other cars to access the area. Do not park on the grass.
- There are no public restrooms at this site.

### **Directions for first responders:**

- From the South Bristol Fire Department, continue south on 129; take a left on East side Rd.
- Continue down to the end of the road.

If the diver hasn't been relocated to parking lot be sure someone is waiting in the parking lot to direct first responders to the diver.



# Appendix

# **Diver Incident Documentation**

Name of diver:	Dive location:						
Dive 1 - Max depth:	Bottom time:	Time in:	_ Time out:	_Gas:			
Dive 2 - Max depth:	Bottom time:	_ Time in:	_ Time out:	_Gas:			
Dive 3 - Max depth:	Bottom time:	Time in:	_ Time out:	_Gas:			
Dive 4 - Max depth:	Bottom time:	Time in:	_ Time out:	_Gas:			
Dive 5 - Max depth:	Bottom time:	Time in:	_ Time out:	_Gas:			
Was a dive computer used?	?⊡Yes ⊡No If ye	s, bring with dive	r to medical facility	<i>7</i> .			
<b>Documenting symptom progression</b>							
Time:							
Description:							
Aid rendered:							
Time:							
Description:							
Aid rendered:							