Mount Desert Island Waters

by Eric Roos

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BENEATH COLD, DARK WATERS

I've adjusted my mask and now I'm looking into the dark waters below. Descending headfirst, I clumsily slap the calm surface with my fins as if waving good-by to the circling seagulls above. As I sink meter by meter the water keeps turning a darker shade of green. Looking at my depth gauge I read: 6 meters, 8 meters and finally at 10 meters the bottom appears. I feel more comfortable seeing the bottom. Limited visibility allows me to really focus my attention on everything in sight. Softball-size rocks covered with red and purple encrusting algae are all over the bottom. And green sea urchins are ouch! Well, they're everywhere too; displaying their calcarious spiny armor. It's beautiful down here.

Naturally, since I can only see a few meters ahead I want to know what lies beyond. "The grass is always greener," I guess. So I kick my fins a bit and settle down in a whole new scenery. It feels as if I just entered a room: a round room whose size is determined by the distance I can see. A sandy floor with three large anemone-covered rocks lies ahead. Some are yellow, brown, white but one is white with brown stripes. Leaning my head between the two rocks I examine ... I jerk my head back, bump the anemones and a bright yellow seaweed-looking sea raven swims between the rocks and into the distance. Turning to see the other anemones I realize my startling motions caused them to close up into colorful fleshy balls.

I look for a door to the next scenery and begin turning around three hundred and sixty degrees. But there are no doors, just mysterious shady images teasing my imagination. The degree of suspense these images create determines my new direction. I begin kicking my fins effortlessly toward a distant dark object. I am determined to immediately identify this object. My heart starts pounding while my imagination utilizes its fresh supply of

adrenaline. I can't believe what lies ahead. I think I see an old wooden hull. Perhaps the hull of a famous Revolutionary war ship. I can't help but imagine pulling gold chains, emeralds and coins from the sand. A shiver interrupts my breathing and stops halfway down my spine. A large ledge covered with colorful invertebrate life appears protruding from the sandy bottom.

Disappointing you wonder? Not to me, for the suspense of my fantasies are as real as the sea urchin spines in my rear. I love these lingering suspenseful moments because they momentarily spare me from the pressures of everyday life. Diving in cold, dark waters gives one a chance to be alone without feeling lonely...

INTRODUCTION

Welcome to Mount Desert Island waters. This guide is intended for certified sport divers who will not go deeper than sixty feet. Although I included decompression tables in the back, I strongly discourage anyone from getting into a decompression situation. Since minimal light penetrates below fifty feet, very little animal and plant life exists there. To enjoy the unique and surprisingly colorful marine faunas living in the light zone, stay above the deep dark region.

In addition to sport divers, several sections of this guide are intended for those who do not dive but still want to know "what's down there." Hopefully these sections will not only be useful and informative, but more importantly, intriguing enough to encourage diver certification.

For those who are certified, but new to Maine waters, I recommend reading the Suggestions, Cautions, and Helpful Hints section before diving. Seasonal divers should refresh their memory and review their classroom scuba text. Enjoy your dives!

MOUNT DESERT ISLAND INHABITANTS

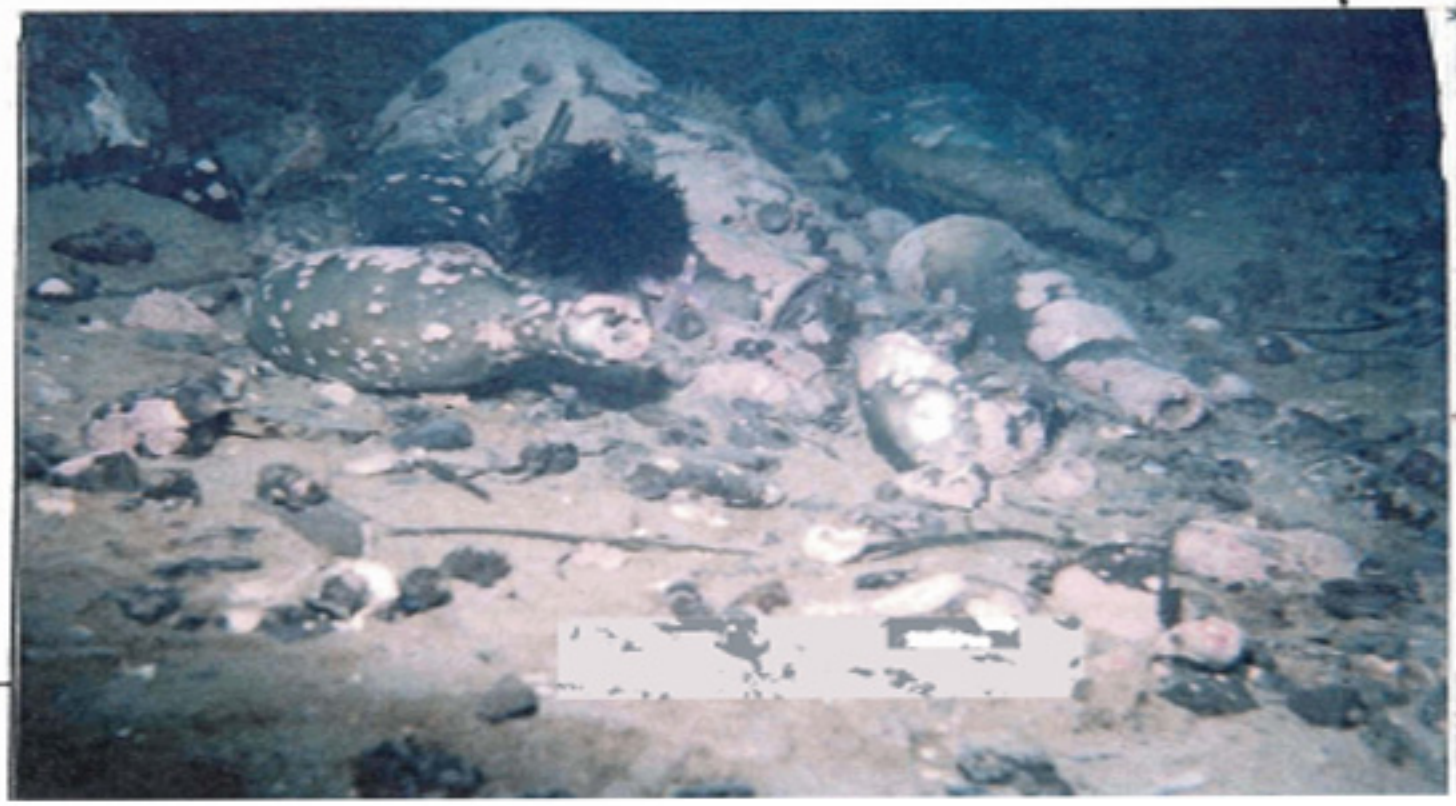
For thousands of years people have been attracted to Mount Desert Island (MDI). The Abanaki indians were the island's first summer residents. They were joined briefly by the Portuguese/Spanish explorer Este'van Gomes (1525), the First European to discover MDI after he sailed from Spain in search of a strait leading to the pacific. Eighty years later, two Frenchmen, Samuel de Champlain and Sieur de Mont, sailed to Mount Desert (1604) to claim new land for King Henri IV. By 1613, the French established a colony on Fernald's Point and lived peacefully with the indians. A few years later, however, the King of England ordered his Virginia colony troops to attack all French colonies in the area and claim the land for England. Meanwhile, despite the ongoing battle, in 1688, the Governor of Canada quietly granted Lordship of MDI to Antoine de la Mothe Cadillac (Sieur de Cadillac).

By 1760, the French/English battle over the possession of Mount Desert Island was nearly over. Most of the French left North America and the Abanaki indians spent much less time on the island. Although several families now lived on the island, the land was not officially theres. For, in 1764, the King of England officially granted the entire island to one man: Francis Bernard, Royal Governor of the Province of Massachusetts Bay. Governor Bernard and his friends established the first official settlement on Mount Desert Island: Somesville. Governor Bernard left the island shortly thereafter and returned to England.

Around 1786, Governor Bernard's son, Sir John Bernard, reclaimed partial ownership of the island. The remaining portion of the island was granted to Madame Barthelmy de Gregoire, granddaughter of Sieur de Cadillac. Before long, Sir John Bernard

and Madame Barthelmy de Gregoire sold several parcels of land and by 1800, MDI was inhabited by many settlers. Soon an economy of timber and shipbuilding bloomed and boats sailed as far as the West Indies with cargos of timber. By the mid 1800's steamboats, fishing fleets, racing sloops and hundreds of other sailing vessels filled the bay. And by 1888, Bar Harbor boasted eighteen motels and nearly 175 elaborate summer "cottages" designed by top architects. Clearly, the Cottage Era with its monstrous motels and fanciful cottages was here, and the mountains, lakes and surrounding waters were admired by the Island's first "Tourists."

Today evidence of the elaborate cottage era and seafaring days can be seen by observant divers. European clay pipes thrown from the decks of sailing vessels still lie on the bottom of many harbors. Bottles and ceramic fragments dating between 1840-1920 encircle old granite moorings. Stones from crib piers that once extended from the shores of private cottages still lie in place and can be visited by divers. It is even possible to find a portion of one of the many wrecked vessels along the Island's coast. Clearly, since the Island's past inhabitants depended highly on the sea for food commerce and eventually entertainment, it is not surprising to find evidence of so much history hidden beneath MDI waters.



SUGGESTIONS, CAUTIONS AND HELPFUL HINTS

Those of you who have only been diving in tropical seas will find Maine waters very different. Maine's coastal waters possess specific characteristics which make it unique. Divers should be familiar with these characteristics before exploring the waters of Mount Desert Island.

TIDES

If you are accustomed to 2-6 inch tides you will be alarmed to see Frenchman's Bay rise and fall 9-14 feet each day; and amazed at how different the same dive sites appear at high and low tide. This tide rises and falls in only six hour intervals, with a forty five minute break at the end of each interval. So plan your dives accordingly and do not get caught in the current of an outgoing tide. Never dive without first checking the weather forecast and tide chart. If you dive at low tide, make sure your gear bag and other dry articles are on high enough ground to ensure the tide does not cover them over. Remember, the tide may only rise 9-14 vertical feet, but it can cover hundreds of feet horizontally within a few hours.

CURRENTS

It is a myth that currents only exist near the surface. They are found at a variety of depths and cannot be predicted. Be prepared to encounter an undercurrent. Panicking or fighting against the current will only exhaust you and your air supply. But, by swimming with the current and gradually bearing off toward one side an undercurrent can usually be escaped.

SLIPPERY ROCKS

Maine's coastline, specifically Mount Desert Island, is very rocky and slippery. Seaweeds and other plants and animals covering these rocks make it very difficult to enter and exit the dive sites. This is particularly difficult when surging waves break on the rocks and pull/push the diver. Before entering the water, walk to the shore and pick the safest spot to enter. Some days, especially just after a storm, there may not be any calm safe spots to enter the water. If this is the case, postpone the dive or checkout another dive site. Remember: 1. You are the one who must decide what is "safe." 2. What is "safe and easy" for you may not be for your partner. Do not encourage your buddy to enter the water unless he/she feels comfortable doing so. Use your best judgement. Once you find the safest spot to enter bring your gear close to shore. Do not try and walk to the shore with all your gear on. Make several trips and watch your footing.

SURGING WAVES

When entering or exiting the water, be prepared for surging wave action to push you around. Upon entry, surface swim out of the surging waves and descend as soon as possible. Even below the surface, surging water will still push and pull you a few feet. Do not fight the serge, but rather use it to your advantage. Only kick your fins when you are pushed or pulled in the right direction. Upon exit, also use the wave action to your advantage. Surging waves will frequently lift you just enough to enable an easy exit from the water.

BARNACLES & SEA URCHINS

Barnacles and sea urchin spines can easily cut through or penetrate your wetsuit and skin. (To reduce chances of infection Such injuries should receive prompt medical attention.) Although most wetsuits provide additional neoprene protection on the knees, some divers wear athletic knee pads over their wetsuits to prevent any tears or punctures. Be particularly cautious of barnacles and sea urchins when entering and exiting the water. Most cuts occur when divers initially enter the water and step on urchins or when they remove wet mitts or booties near barnacle-covered rocks.

SILT

Drifting silt clouds will eliminate visibility very quickly. Try not to back track into your own silt or swim directly behind your buddies. If a surrounding silt cloud does not pass, ascend above the cloud until visibility is restored.

LIGHTS

Although underwater lights are not necessary for daytime diving, they are useful to peek in dark holes and bring out brilliant colors normally absorbed at depth.

FRESH WATER DIVING

Although there is not much to see in Mount Desert Island's ponds and lakes, these freshwater bodies are extremely convenient for rinsing salt from scuba gear. Freshwater diving is limited to the areas where swimming is permitted.

TEMPERATURE

The most commonly known characteristic of Maine water is its cold temperature: reaching its high of 55°F between August and September. However, this high only exists near the surface and temperatures are much colder below. Fortunately, there are easy ways to remain warm at depth, so do not let cold temperatures discourage you from diving.

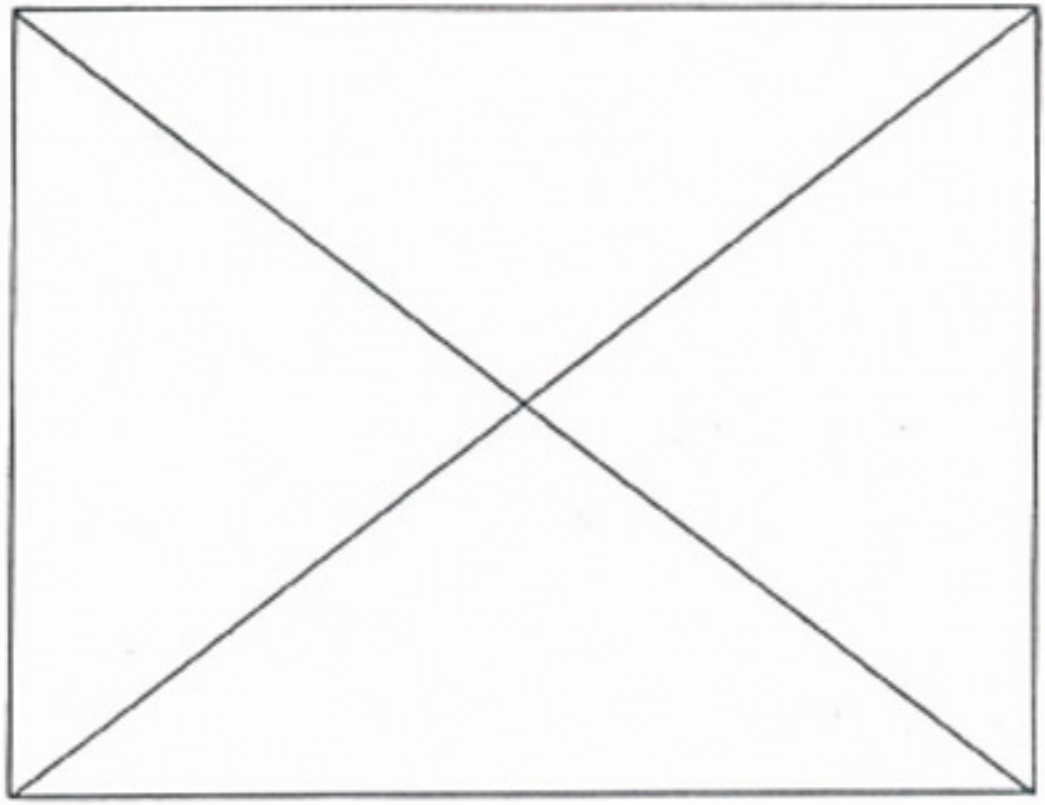
Warm water wetsuit fillup: Save a few one- gallon milk jugs and keep them with your dive gear. Fill the jugs with very hot water before leaving for the dive. At the dive site, put on your entire wet suit and ask your diving buddy to pour the tropical-like water into the suit around your neck. During the dive very little cold salt water will enter your prefilled suit, so you will remain warm longer. If you plan to do several dives, wear thermal underwear, sox and thin gloves under your wetsuit. These undergarments will help hold the hot water between your suit and skin even longer.

When taking photos or observing underwater subjects for long periods, your body heat output will be low and your face and lips may get cold. Smear blistex or some brand of lip balm on these exposed areas before beginning a low movement dive. This will keep your face and lips from swelling as much and prevent post-dive cold sores.

VISIBILITY

Unlike the tropics, Mount Desert Island waters are not crystal clear. Depending on previous weather conditions, available sunlight and bottom type, visibility ranges from five to fifty feet. Dive buddies will inevitably separate from each other at some point during a dive. When this happens, remain calm and turn around three hundred and sixty degrees. If you still do not see your buddy, ascend slowly (no faster than 60 ft per minute) and wait for your partner at the surface. Do not tie lines between buddies. Holding hands is much safer than buddy lines, though this may entangle you in a new relationship!

DIVE SHOP



HARBOR DIVERS

Harbor divers, located off route 102A in Bass Harbor, is the only dive shop on Mount Desert Island (see MDI map) and provides air, equipment repairs, rentals and sales. In addition, they offer diving courses and certification for those needing instruction. Dive groups or individuals interested in night diving, ledge diving or other boat dives can charter the dive shop's 34'powerboat Excalibur. Such trips can accommodate divers of all ability levels and are by reservation only. Harbor Divers is open 7 days/week from 9am-7pm. For more information call (207) 244-5751.

In addition to Harbor Divers, Haynes Garage, located on Pine Street, Northeast Harbor, fills scuba tanks.

BOAT RENTALS

Divers who wish to explore the Porcupine Islands or other areas unaccessible from shore can rent power boats in the following areas:

Bar Harbor: Harbor Boat Rentals is located next to the town pier, on the docks of Frenchman's Bay Boating Company. To make reservations call 288-3757.

Southwest Harbor: Mansell Boat Company is located on Main Street, Southwest Harbor and offers both daily and weekly boat rentals. For more information call 244-5625.

Manset: Manset Boat Rentals, located off Shore Road in Manset, also offers half day, full day and weekly rentals. To make reservations call 244-3585.

ECOLOGY AND CONSERVATION

To avoid collecting non-edible animals or those bearing eggs, spawning or otherwise involved in a reproductive process, divers should not spear or take animals they are not familiar with. Below I have listed the most commonly seen non-edible species as well as information concerning the reproductive cycles of some common animals. Divers who intend to spearfish or collect animals should know this information before diving. A Field Guide To The Atlantic Seashore by Kenneth L. Gosner and Fishes Of The Gulf Of Maine by Bigelow and Shroeder are especially good for detailed descriptions of animal biology and natural history.

Though many of these marine fish are edible, they are not terrific. For this reason, most divers prefer to observe, feed or photograph these animals. To conserve the existing marine populations for future divers, those who spearfish must be conscious of the breeding cycles, comply with legal limitations and hopefully make good use of their catch.

CUNNER *(Tautogolabrus adspersus)*

The waters between Mount Desert Island and Bluehill Bay may be a breeding center for cunner (Bigelow and Schreoder, 1953). Cunner spawn from late spring through early summer. Divers should not spear cunner during this time.

SCULPIN *(Myoxocephalus sp.)*

Sculpins spawn from late November through February. Though they are edible, most divers prefur to observe or follow the slow moving fish.

LUMPFISH *(Cyclopterus lumpus)*

Although lumpfish live in deep water, during the spring and early summer they breed in the shallows. After egg laying the females return to deep water but the males remain in the shallows to oxiginate and guard the eggs. During this time, male lumpfish are quite vulnerable to ignorant diver's and their spearguns. Lumpfish are not edible and should not be speared. Observe them instesd.... they are amusing.

WINTER FLOUNDER *(Pseudopleuronectes americanus)*

Winter flounder spawn between January and May. However, sand flounder (Lophopsetta maculata), generally too small to eat, spawn in spring and summer. To avoid confusing the two, divers should not spear flounder smaller than 10 inches.

SKATE *(Raja ocellata)*

Skates begin spawning in early summer and do not stop until December. Their dark brown egg cases can frequently be seen on the bottom throughout the summer. Because of their spawning period, skates should not be taken during the summer.

SEA RAVEN *(Hemitripterus americanus)*

Sea ravens spawn between October and December. During this time divers may see their eggs attached at the base of the eyed finger sponge (Haliclona oculata). The eggs may be sticky and should not be touched. Though sea ravens are edible, they are rare and should only be occasionally taken.

ROCK CRAB *(Cancer irroratus)*

Divers should be careful between late July and August not to take crabs bearing eggs. When present, these eggs can be seen on the crab's ventral side.

DIVING LAWS: SEAFOOD COLLECTING

Several Mount Desert Island residents, like many coastal communities, depend heavily on Maine's fishing industry. Scallop dragging and lobster fishing, in particular, are an important part of a fisherman's annual income. As a result, to ensure that these resources will be plentiful for future generations to harvest, the Department of Marine Resources has placed specific restrictions on the collection of these and other marine animals and plants. A copy of the laws concerning required licenses and limitations are available at the Ellsworth Marine Patrol Office, 667-3373, or through any Marine Patrol Officer.

Below I have outlined the laws concerning scuba divers which govern the collection of the most commonly desired animals:

LOBSTER: Divers cannot take lobsters. Although in other parts of New England divers are permitted to take lobster with a licence, in Maine it is illegal to take lobster by any method other than conventional lobster traps.

CRAB: Divers do not need a licence to take crabs by hand provided they are for personal use. However, to maintain the existing population, divers may not take crabs bearing eggs.

SCALLOPS: New Legislation: In November 1986, the Maine Marine Resource Commissioner enacted new legislation concerning divers and the collection of scallops.

Commercial Divers: Divers who wish to sell scallops must obtain a commercial scallop licence and can only collect scallops between January 1st and April 15th.

Sport Divers: Divers who wish to collect scallops for personal use must obtain a licence and are limited to two bushels of shell scallops or four quarts of shucked scallops per day. Sport divers can only collect scallops between November 1st and April 15th. Divers cannot take scallops in the summer.

MUSSELS: Divers do not need a licence to take up to half a bushel of mussels from nonrestricted areas in one day, provided they are for personal use. Pay close attention to local reports concerning closed or polluted shellfish areas. Up-to-date accurate information changes frequently.

FINFISH: Divers may take any species of fish without a licence, provided they are for personal use and the diver uses a speargun or harpoon. Do not take any other plant or animal without first checking Maine Marine Resource laws.

DIVING LAWS: ARTIFACT COLLECTING

Any artifact, object, material or specimen found in or on land submerged beneath Mount Desert Island waters is state-owned property (27 M.R.S.A. sections 371-377). This includes bottles, ceramic plates, clay pipes, arrowheads or any other objects worked or modified by human action. Since the Maine State Museum is responsible for protecting, preserving and interpreting such objects, divers cannot remove these materials from MDI waters.

In addition, since it is in the public interest to protect and preserve archaeological artifacts for the benefit of the people of the state, I encourage divers to report any unusual finds to the Maine State Museum in Augusta. The Museum is best qualified to interpret such finds and ensure their proper preservation.

Those interested in more details concerning archaeological conservation legislation can refer to the Maine Revised Statutes Annotated (MRSA), title 27, sections 371-377.

EMERGENCY MEDICAL CARE

Mount Desert Island Hospital, located in Bar Harbor on Wayman lane, is a modern, nonprofit institution and provides 24 hour a day emergency care. Though its medical staff is small, it embraces all major medical specialties. In the event a diver should need emergency medical treatment, contact Mount Desert Island Hospitol. The hospitol's emergency medical personnel will evaluate the patients condition and initiate the appropriate procedures immediately. It is the medical personnel who should contact the Diver's Alert Network (D.A.N.).

Emergency Phone Numbers

MDI Hospital (24hrs) 288-5081
South West Harbor Coast Guard (24hrs) 244-5121
Out at sea call ..... VHF Channel 16
Bar Harbor Police/Rescue (24hrs) 911
Northeast Harbor Rescue (24hrs) 276-5111
Southwest Harbor Rescue (24hrs) 244-5030
* Diver's Alert Network (D.A.N.) ..... (919) 684-8111
New London Conn. Recompression
information 203-449-3422

* Diver's Alert Network is also available to answer non-emergency dive related medical questions
(Mon.- Fri. 9-5pm) ..... (919) 684-2948

EMERGENCY MEDICAL INFORMATION

Name _____

Address _____

_____

Phone: _____

Sex _____ Eye Color _____

Height _____ Hair Color _____

Weight _____ Blood Type _____

Medical Problems/Allergic reactions _____

_____

_____

Daily medications: _____

_____

In an emergency notify: _____

Address _____

_____

Phone: _____

Personal doctor: _____

Address: _____

Phone: _____

MOST COMMON ANIMAL LIFE

In order to save you from thumbing through pages of field guides and biology books to identify animals seen below, I have tried to narrow down the possibilities by including a list of names, both common and scientific, of the most frequently seen animals. Hopefully, with these names, you can easily find more information.

Beneath Cold Waters by Fred Bavendam is an excellent book of underwater photographs and A Field Guide To The Atlantic Seashore by Kenneth L. Gosner and Fishes Of The Gulf Of Maine by Bigelow and Shroeder, are especially good for more detailed descriptions of animal biology and natural history.

COMB JELLIES

Sea Gooseberry	*(Pleurobranchia pileus)*

CNIDARIANS

Branching Soft Coral	*(Geresenia rubiformis)*
Dead Man's Finger Soft Coral	*(Alcyonium digitatum)*
Frilled Sea Anemone	*(Metridium sinile)*
Hydroids	*(Halecium spl Obelia sp)*
Lion's Mane Jellyfish	*(Cyanea capillata)*
Many Ribbed Jellyfish	*(Aequorae sp)*
Moon Jellyfish	*(Aurelia aurita)*
Northern Red Anemone	*(Tealia felina)*
Stalked Jellyfish	*(Lucernaria quadricornis)*
Tiny Jellyfish	*(Mitrocomella polydiademata)*

SPONGES

Boring Sponge	*(Cliona celata)*
Crumb of Bread Sponge	*(Halichondria panicea)*
Eyed Finger Sponge	*(Haliclona oculata)*
Palmate Sponge	*(Isodictya sp)*

FISH

Common name	*Scientific name*
Cunner	*(Tautogolabrus adspersus)*
Longhorn Sculpin	*(Myoxocephalus octodecimspinosus)*
Lumpfish	*(Cyclopterus lumpus)*
Pollock	*(Pollachius virens)*
Rock eel	*(Pholis gunnellus)*
Sand Flounder	*(Lophopsetta maculata)*
Sea Raven	*(Hemitripterus americanus)*
Shorthorn Sculpin	*(Myoxocephalus scorpius)*
Skate	*(Raja ocellata)*
Spiny Dogfish	*(Squalus acanthias)*
Winter Flounder	*(Pseudopleuronectes americanus)*

TUNICATES

Sea Grapes	*(Mogula manhattensis)*
Sea Peach	*(Halocynthia pyriformis)*
Sea Vase	*(Ciona intestinalis)*
White Crust	*(Didemnum candidum)*

ECHINODERMS

Blood Star	*(Henricia sanguinolenta)*
Daisy Brittle Star	*(Ophiopholis oculeata)*
Green Sea Urchin	*(Strongylocentrotus droebachiensis)*
Orange-footed Sea Cucumber	*(Cucumaria frondosa)*
Purple Sea Star	*(Asterias.vulgaris)*
Purple Sun Star	*(Solarster endeca)*
Sand Dollar	*(Echinarachnius parma)*
Scarlet Psolus	*(Psolus fabricii)*

ARTHROPODS

Acadian Hermit Crab	*(Pagurus acadianus)*
Caridean Shrimp	*(Lebbeus groenlandicus)*
Hairy Hermit Crab	*(Pagurus arcuatus)*
Lobster	*(Homarus americanus)*
Montague's Shrimp	*(Pandalus montagui)*
Northern Rock Barnacle	*(Balanus balanoides)*
Rock Crab	*(Cancer irroratus)*
Skeleton Shrimp	*(Caprella sp)*
Toad Crab	*(Hyas coarctatus)*

MOLLUSKS

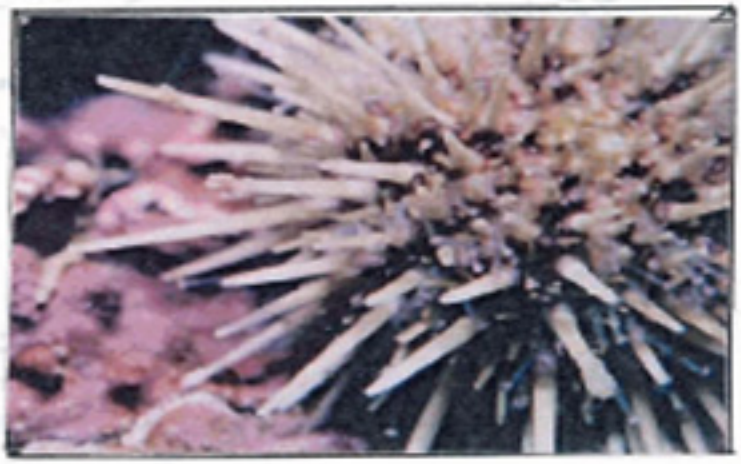
Blue Mussel	*(Mytilus edulis)*
Deep Sea Scallop	*(Placopectin magellanicus)*
Horse Mussel	*(Modiolus modiolus)*
Northern Moon Snail	*(Lunatia heros)*
Maned Nudibranch	*(Aeolidia)*
Red Chiton	*(Ischnochiton ruber)*
Red-gilled Nudibranch	*(Coryphella verrucosa)*
Sponge-eating Nudibranch	*(Cadlina laevis)*
Stimpson's Whelk	*(Colus stimpsoni)*
Tortoiseshell Limpet	*(Acmaea testudinalis)*
Waved Whelk	*(Buccinum undatum)*

ECTOPROCTS/BRYOZOANS

Bushy Bugula	*(Bugula turrita)*
Sea Lace	*(Electra pilosa)*

WORMS

Fan Worm	*(Myxicola infundibulum)*
Scale Worm	*(Lepidonotus squamata)*



Diver's Guide to MDI

Dive Sites

1. Albert Meadow
2. Miss America Step-off
3. Otter Point
4. Scenic Overlook
5. Little Hunter's Beach
6. Hunter's Beach
7. Seal Harbor Beach
8. Seawall
9. Bass Harbor Light
10. Seal Cove

—THE SITES—

The following dive sites represent only a fraction of the diving areas around MDI. Unfortunately, treacherous cliffs, exhausting hikes and private property limit accessibility to many areas. In this guide I have included sites that are accessible during calm weather. However, you must ultimately decide whether or not the sites are accessible. Remember, every diver has different physical limitations. Use your best judgement.

Although divers can safely dive at any point during active tides, the forty-five minute interval between tide changes is ideal. To avoid unnecessary swimming against currents, whenever possible plan your dives during this interval.

Because the "safest spot" to enter the water at each site will fluctuate due to changing tides and weather conditions, before every dive reexamine the shore to find the "safest spot" to enter.

Divers unfamiliar with Maine waters should reread the Suggestions, Cautions and Helpful Hints section, pp. .... before diving.

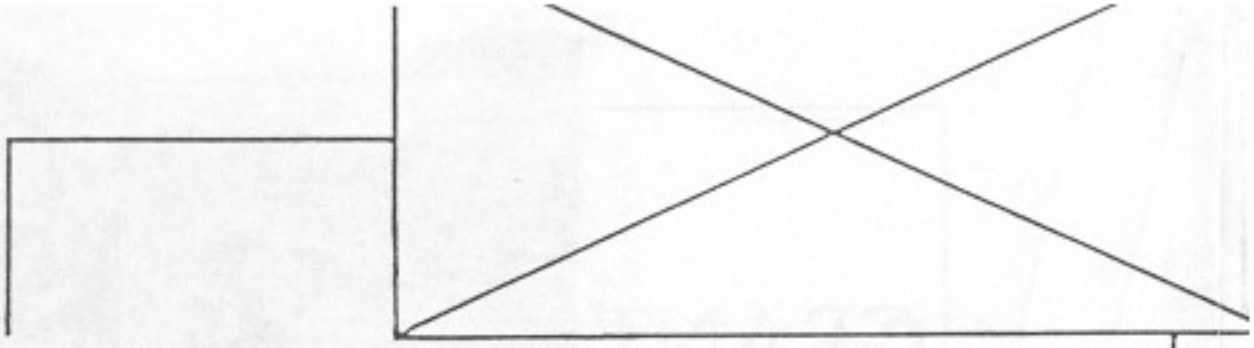
The following sites offer a variety of diving experiences with a broad geographical range. Hopefully, after diving these areas you will feel comfortable and acquainted with the waters and marine life around Mount Desert Island. Enjoy your dives.

GRANT PARK

Directions: From the water follow Main Street mile and turn left on to Albert Meadow road. Drive to the end and leave your car in the parking lot.

Geology: Layered beds of fine-grained sedimentary rock gently incline toward the shore. This bedrock, known as the Bar Harbor Series, is actually grey or pale lavender though it is often covered by a thin film of rusty iron oxide. The large boulder that rests on the shore to the right of Albert Meadow is not part of the Bar Harbor Series. This boulder is composed of course granite and white feldspar crystals. It was probably dislodged from a distant ledge and deposited here by glaciers.

Cautions: Be careful stepping from the shore path to the rocks below. Stones along this edge may be loose and should not be gripped. Do not wear your tank or weight belt when stepping off the shore path. Ask your buddy to pass the heavy things once your feet are on solid ground.



The Site: Unlike other public areas in Bar harbor, Grant Park is not frequently visited due to its somewhat hidden location. Albert Meadow offers a picturesque view of the Porcupine Islands as well as the passing cruise ships that weave in and out of the harbor.

Divers may see a variety of animal life in these waters. Most of this life can be seen in less than 30 feet of water. Large boulders and ledges protruding from the bottom provide invertebrate life with a convenient surface to grow and colonize. Occasionally, sculpins resting on these ledges will permit divers to approach within an arms length before swimming away.

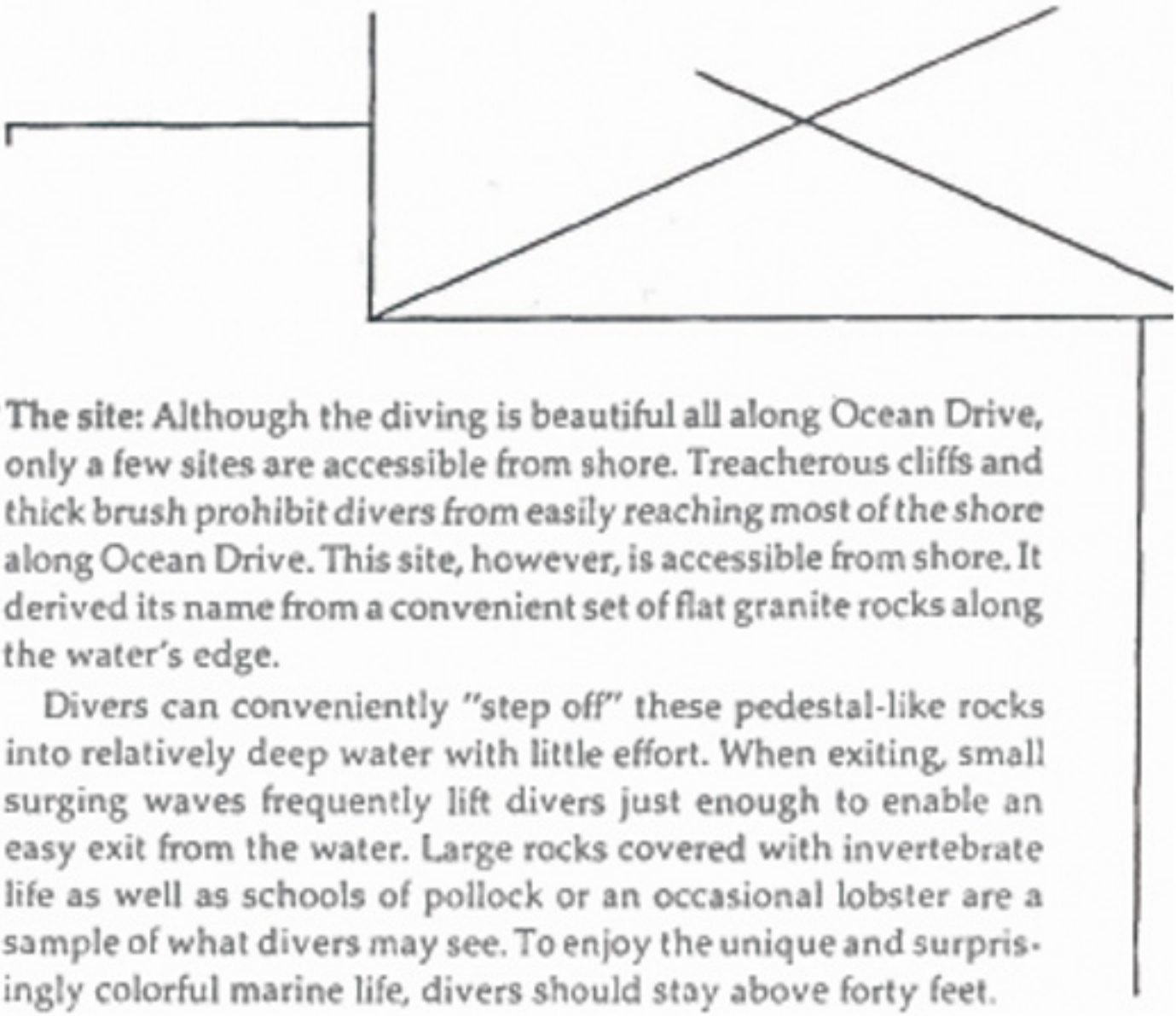
Those of you diving in early June should watch for lumpfish (Cyclopterus lumpus) while they guard and oxygenate large masses of pink/green eggs. Divers lucky enough to observe a lumpfish will undoubtedly be entertained.

MISS AMERICA STEP-OFF

Directions: Follow the Park Loop road .... miles beyond Sand Beach. Turn right into parking lot. The site is directly across the parking lot.

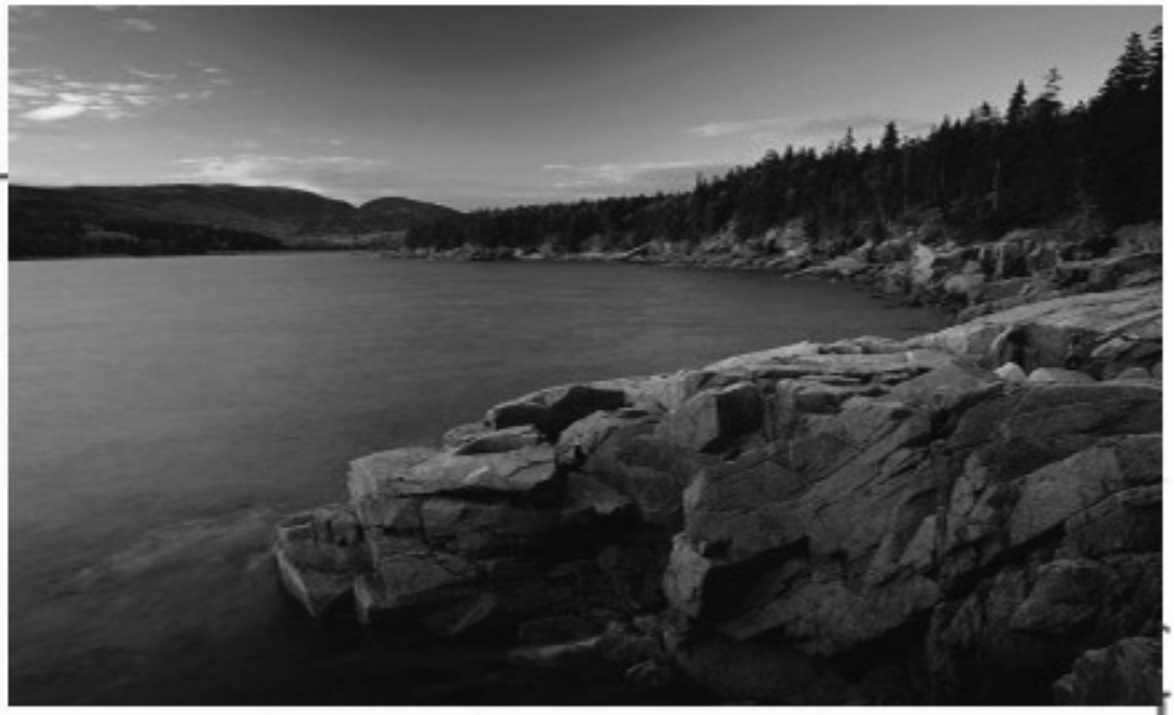
Geology: The ledge you will walk over to reach the shore is part of a coarse-grained granite strip extending southward to Otter Point. You will see sand beneath the water and between isolated granite ledges. This sand, like that of Sand Beach, is unusual because it contains a large percentage of shell fragments and a low percentage of the more ordinary grains of quartz and feldspar. These shell fragments are from blue mussels (Mytilus edulus), green sea urchins (Strongylocentrotus droebachiensis) and various clams.

Cautions: Be extremely careful climbing down to the shore. Even dry granite surfaces can be slippery at times. Make several trips and do not carry too much at on time. This site is frequently disturbed by surging waves. If you think it is too rough, postpone the dive or check out another site. Use your best judgement.



The site: Although the diving is beautiful all along Ocean Drive, only a few sites are accessible from shore. Treacherous cliffs and thick brush prohibit divers from easily reaching most of the shore along Ocean Drive. This site, however, is accessible from shore. It derived its name from a convenient set of flat granite rocks along the water's edge.

Divers can conveniently "step off" these pedestal-like rocks into relatively deep water with little effort. When exiting, small surging waves frequently lift divers just enough to enable an easy exit from the water. Large rocks covered with invertebrate life as well as schools of pollock or an occasional lobster are a sample of what divers may see. To enjoy the unique and surprisingly colorful marine life, divers should stay above forty feet.

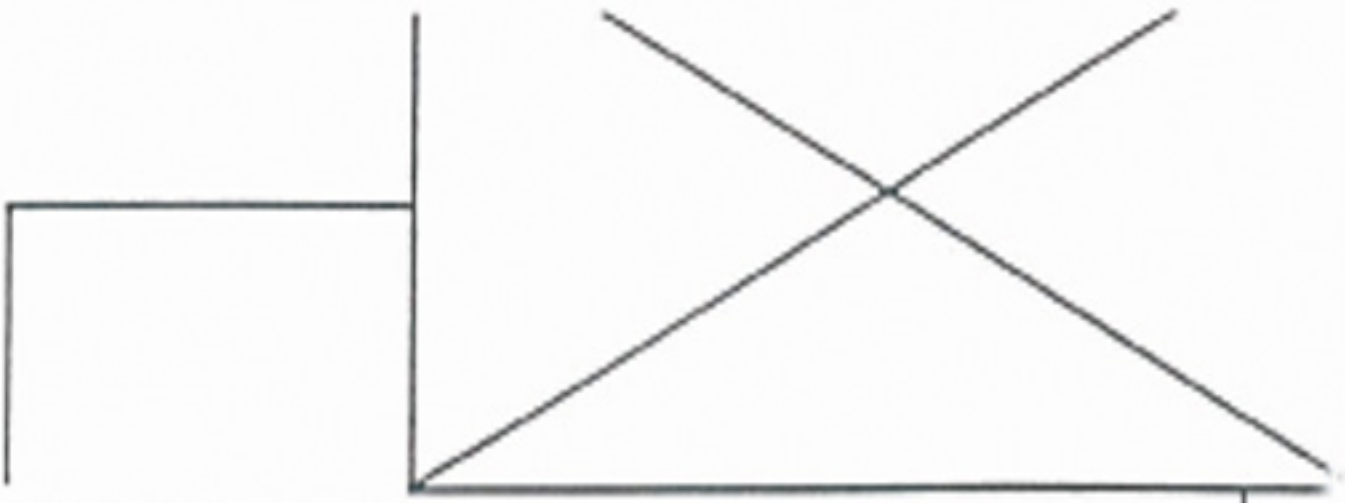


OTTER POINT

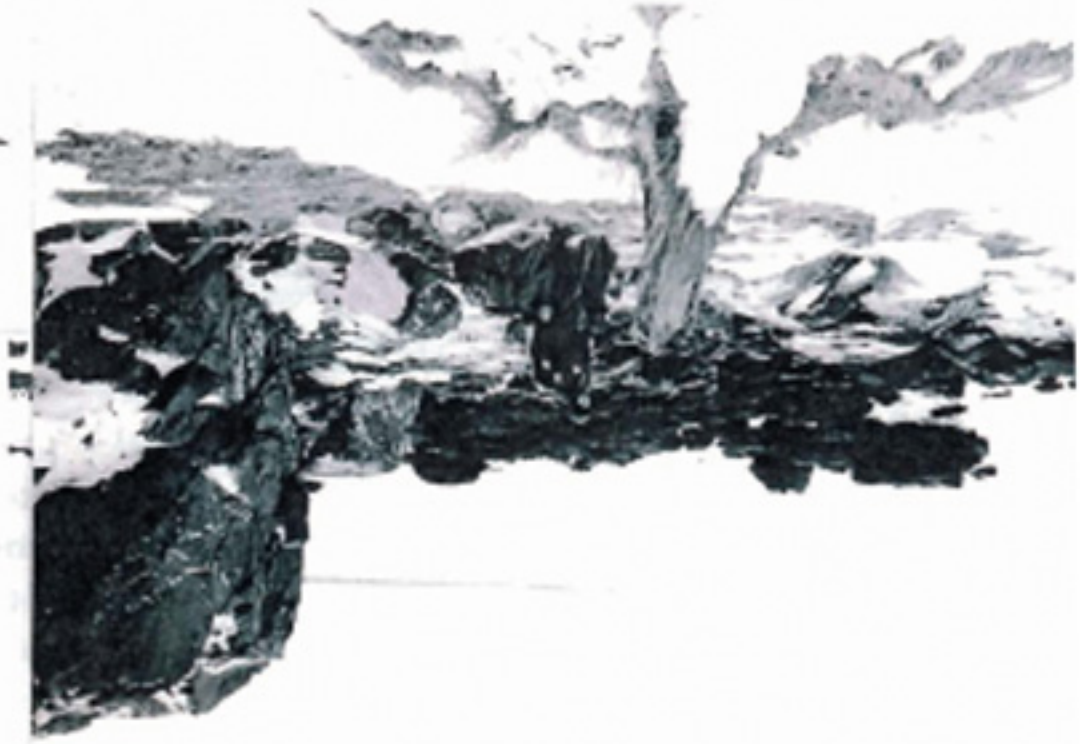
Directions: Follow the Park Loop road to Otter Point parking lot (.... miles from Sand Beach.)

Geology: If you walk to the shore from the center of the parking area, you will see a large mass of fine-grained sedimentary material imbedded in the granite. This material dropped into the once hot granite magma and recrystallized into tough brittle quartzite. As you face the ocean, note the large coarse-grained granite boulders on the right. These rocks were once part of the ledge now visible on higher ground. Closer examination of this granite reveals small round dark-colored rocks commonly found imbedded in the coarse-grained granite.

Cautions: Only dive when the water is extremely calm. Slippery seaweed-covered rocks make reaching the water difficult enough without the aggravation of surging waves. To avoid most of the slippery rocks plan to dive about half an hour before high tide. When entering and exiting the water, hold your buddy's hand. After entering, surface swim away from the shore and descend as soon as possible.



The site: On calm days divers will find Otter Point interesting and full of life. Like Miss America Step-off, the waters near Otter Point contain a diverse group of marine organisms. In addition, lucky divers may even find the anchor or some evidence of the early 19th-century schooner Maud Mallock, see pp . . . . .

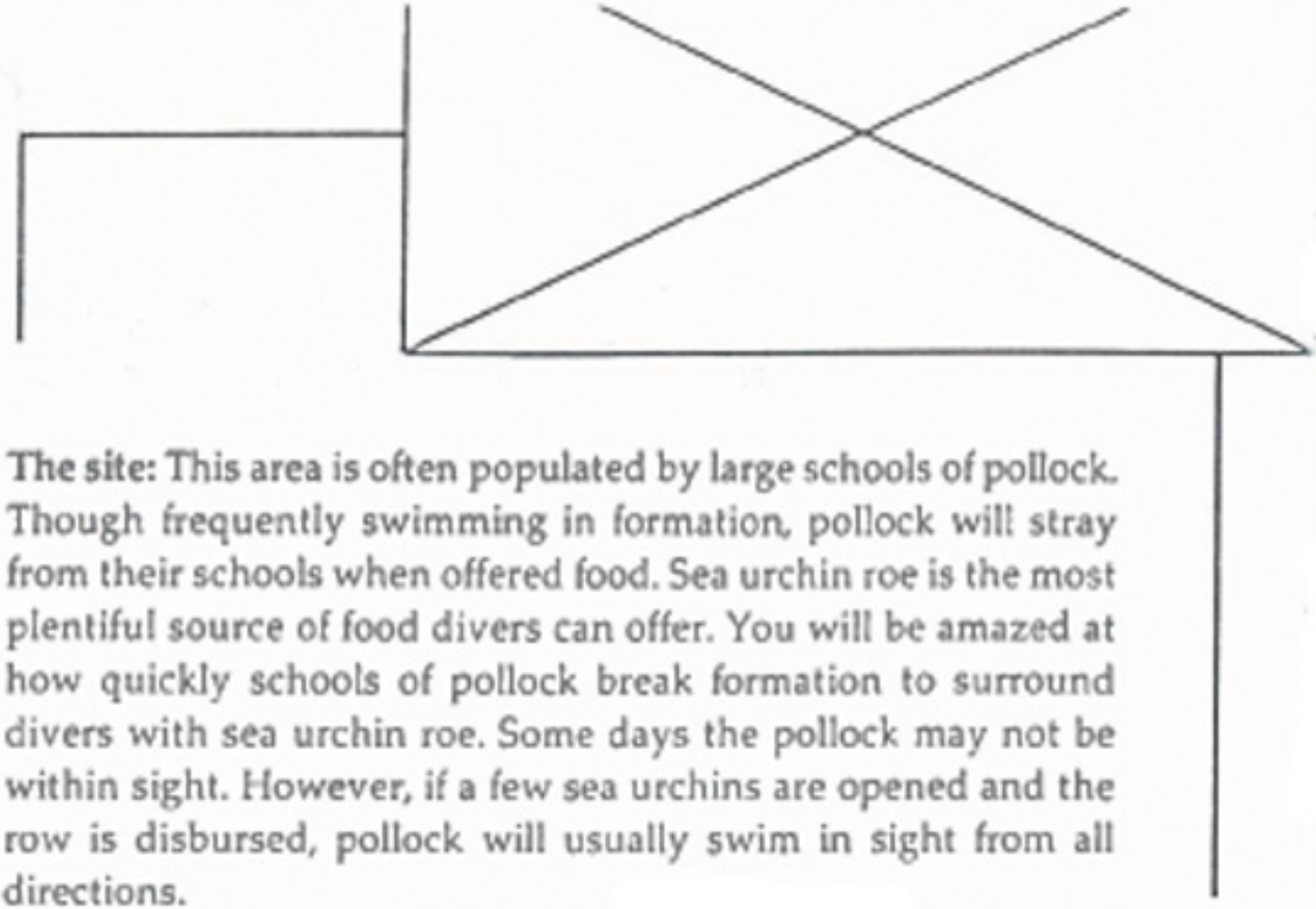


SCENIC OVERLOOK

Directions: Follow the Park Loop road .... miles beyond Otter Point. Turn left into the Scenic Overlook parking area.

Geology: The coarse-grained granite zone mentioned earlier gradually changes into the shatter-zone. In ancient times when the hot granite magma bubbled over the existing country rock, a great deal of fracturing and granulation took place. Today you can see the ruptured dark-colored diorite and light-colored granite veins mixed together in the shatter zone.

Cautions: Like Otter Point, this site also requires divers to walk over slippery rocks. To avoid most of these rocks, plan to dive about half an hour before high tide.



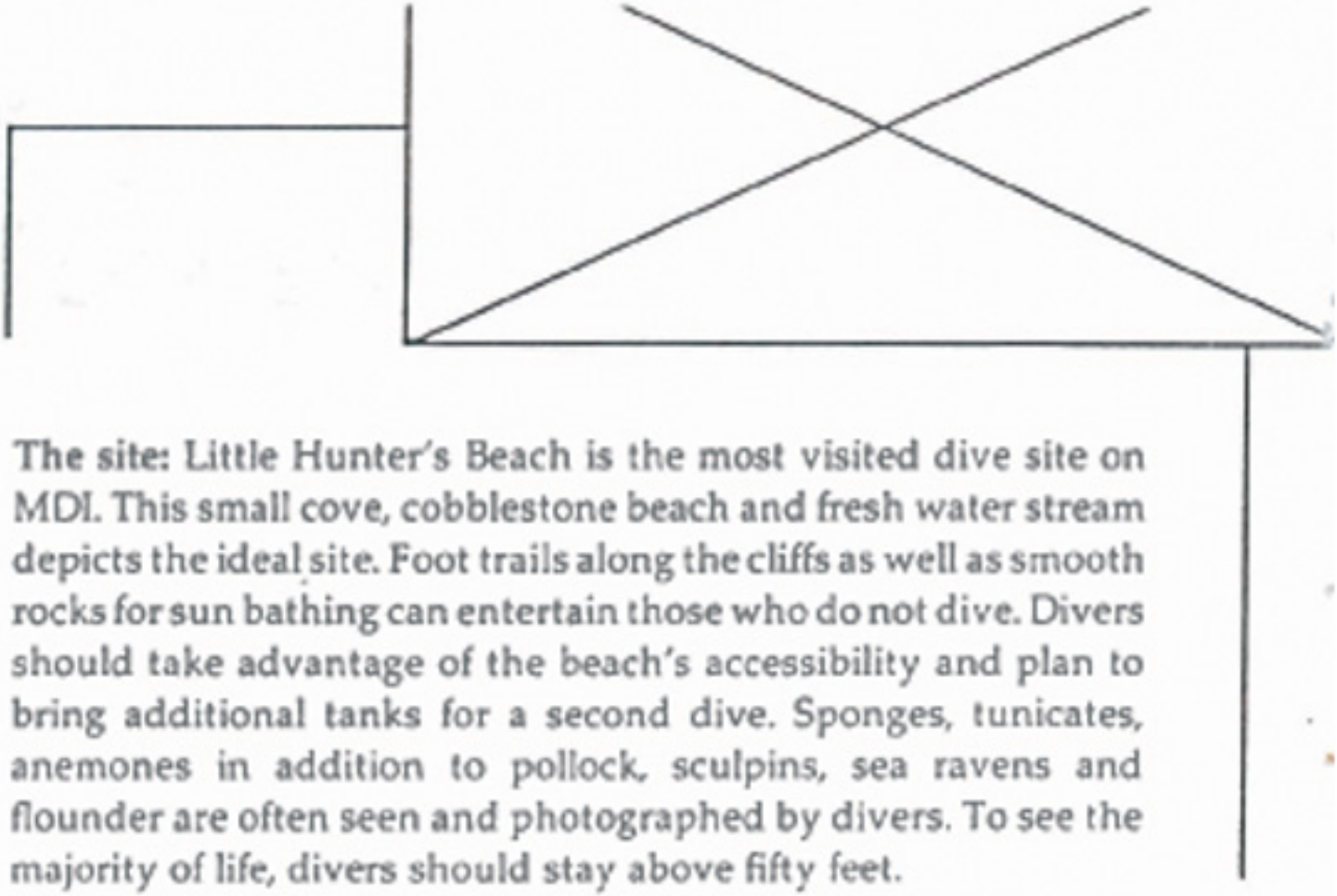
The site: This area is often populated by large schools of pollock. Though frequently swimming in formation, pollock will stray from their schools when offered food. Sea urchin roe is the most plentiful source of food divers can offer. You will be amazed at how quickly schools of pollock break formation to surround divers with sea urchin roe. Some days the pollock may not be within sight. However, if a few sea urchins are opened and the row is disbursed, pollock will usually swim in sight from all directions.

LITTLE HUNTER'S BEACH

Directions: Follow the Park Loop road .... miles from Sand Beach or .... miles from Otter Point. A small parking area is provided just before the bridge on the right side.

Geology: These cobble beach stones resulted from years of continual wave action. Rough seas frequently leave the rocks piled high on the beach. Even small wave action enables listeners to hear the round stones rumble as they move in the surge. The ledges at the far end of the beach are an example of the shatter zone described earlier.

Cautions: Do not try to carry too much gear down the stairs. Make several trips and watch your footing. Campfires are prohibited.



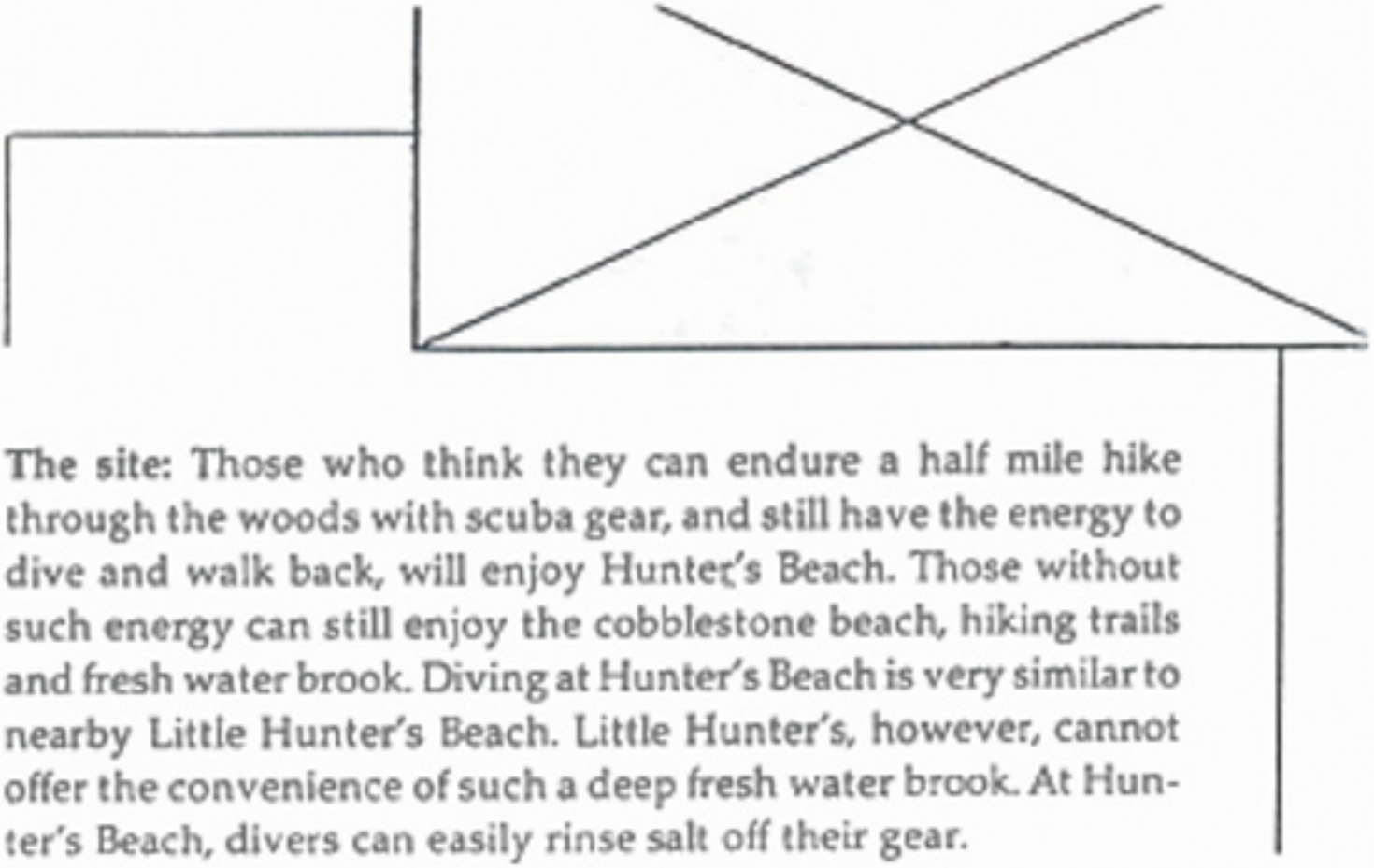
The site: Little Hunter's Beach is the most visited dive site on MDI. This small cove, cobblestone beach and fresh water stream depicts the ideal site. Foot trails along the cliffs as well as smooth rocks for sun bathing can entertain those who do not dive. Divers should take advantage of the beach's accessibility and plan to bring additional tanks for a second dive. Sponges, tunicates, anemones in addition to pollock, sculpins, sea ravens and flounder are often seen and photographed by divers. To see the majority of life, divers should stay above fifty feet.

HUNTER'S BEACH

Directions: Follow route 3 from Bar Harbor, through Otter Creek, to Blackwoods Campground. Continue .... mile beyond the campground and turn left. Drive .... mile and park on the left side. Follow the half mile woods trail to the shore.

Geology: Like the Scenic Overlook, Hunter's Beach is part of the shatter zone. Millions of years ago liquid-hot granite magma ruptured the cooler underlying rock and left the ledges shattered. The round cobblestones strewn across the beach were once part of the nearby ledges.

Cautions: To reach the shore, you must walk over private property. Respect this privilege by obeying the signs. Camping and camp fires are prohibited. Half a mile is a long walk when carrying scuba gear. Do not overload and exhaust yourself before the dive. Either make additional trips or bring a friend along to help. For better traction along the trail, divers should wear hiking shoes. Only plan to dive at this site on very calm days.



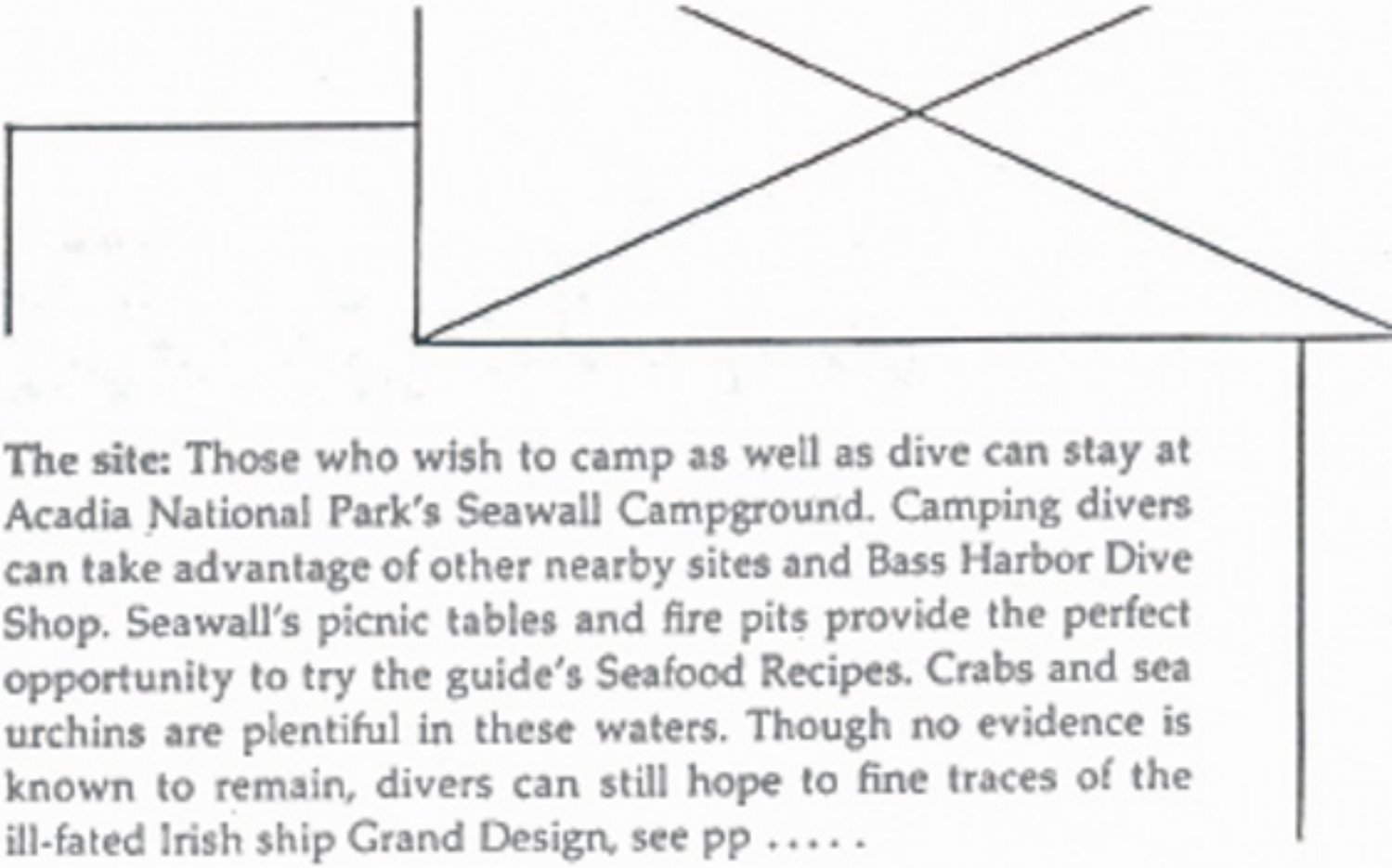
The site: Those who think they can endure a half mile hike through the woods with scuba gear, and still have the energy to dive and walk back, will enjoy Hunter's Beach. Those without such energy can still enjoy the cobblestone beach, hiking trails and fresh water brook. Diving at Hunter's Beach is very similar to nearby Little Hunter's Beach. Little Hunter's, however, cannot offer the convenience of such a deep fresh water brook. At Hunter's Beach, divers can easily rinse salt off their gear.

SEAWALL

Directions: From Bar Harbor follow route 233 to intersection 198. Turn right and drive to stop sign. Turn left on route 102 and drive through Somesville and South West Harbor. Turn left on route 102A and drive 3 miles to Seawall picnic area.

Geology: The cobblestone wall you passed earlier resulted from many severe storms. Angular fragments broken from nearby ledges were smoothed and rounded by years of continual wave action. The ledges from which the cobbles originated lay in front of the picnic area. This ledge series withstood explosive volcanic eruptions. Several fine-grained sediments, various types of older rock and even older shattered lava fragments were mixed during these eruptions.

Cautions: Lobster traps near shore are occasionally pulled and reset by fishermen. To remain visible for the fishermen, always tow a dive flag. Remember, divers cannot take lobster. To avoid the inevitable suspicion by fishermen, stay away from the lobster traps. Seawall picnic area is only open between 6am and 10 pm.

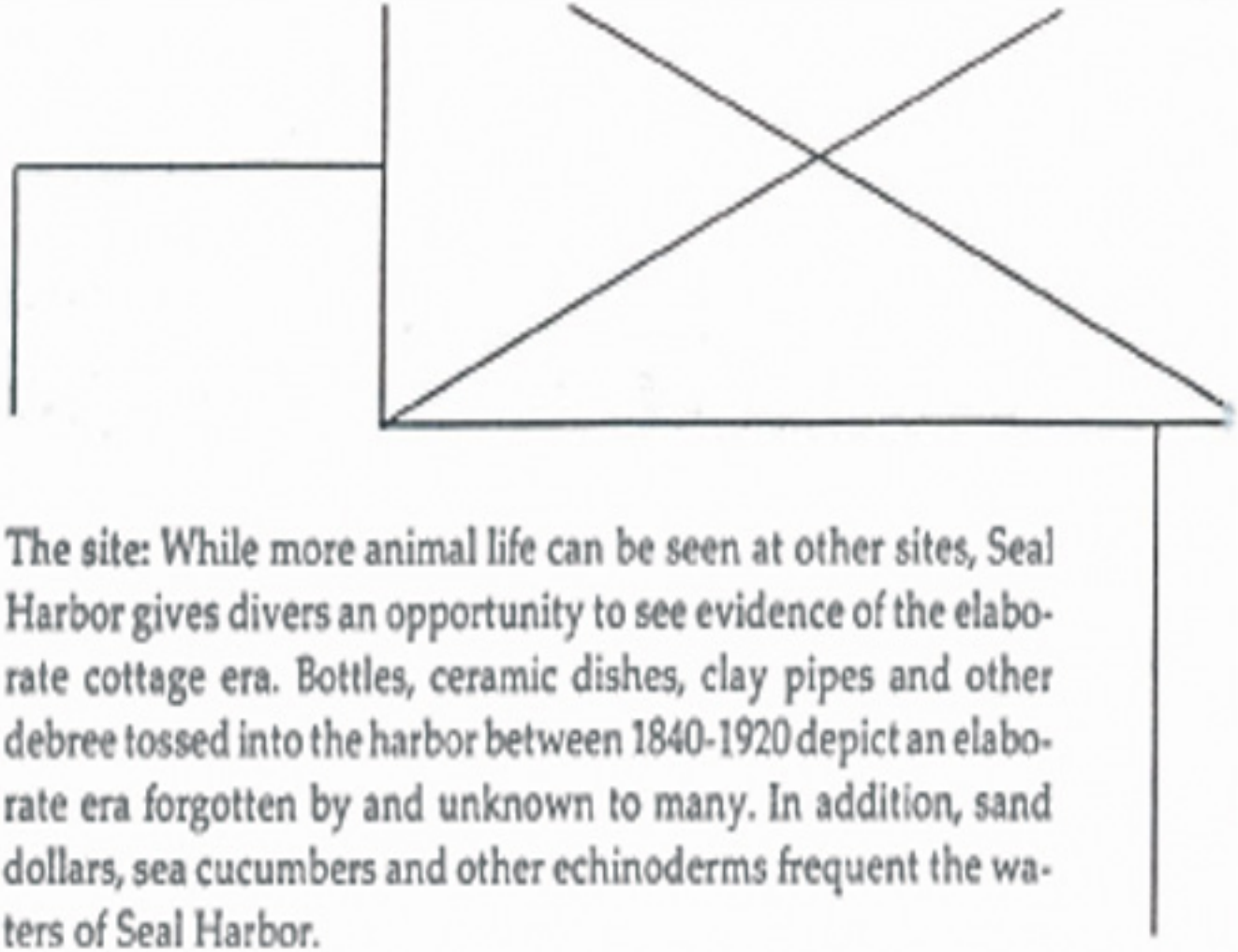


The site: Those who wish to camp as well as dive can stay at Acadia National Park's Seawall Campground. Camping divers can take advantage of other nearby sites and Bass Harbor Dive Shop. Seawall's picnic tables and fire pits provide the perfect opportunity to try the guide's Seafood Recipes. Crabs and sea urchins are plentiful in these waters. Though no evidence is known to remain, divers can still hope to fine traces of the ill-fated Irish ship Grand Design, see pp .....

SEAL HARBOR BEACH

Directions: Follow route 3 from Bar Harbor through Seal Harbor. Turn right at the water fountain and park across from the beach.

Cautions: Fishing boats leaving or picking up moorings often circle toward the beach. To remain visible for the boaters, always tow a diver's flag. Remember that divers cannot remove objects from the water. All artifacts, objects, materials or specimens found beneath state-controlled waters are property of the state, see diving legalities pp . . . . .

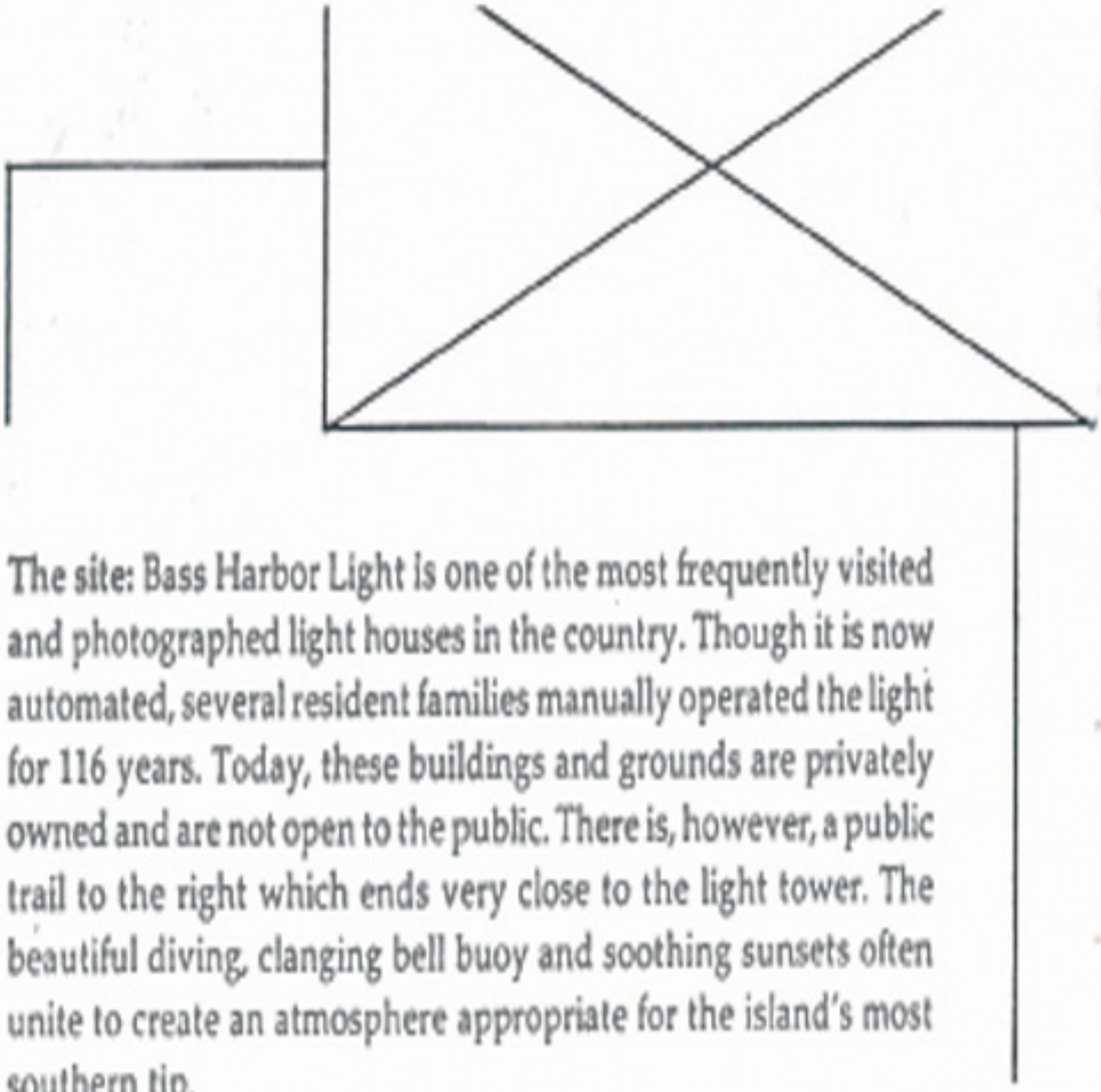


The site: While more animal life can be seen at other sites, Seal Harbor gives divers an opportunity to see evidence of the elaborate cottage era. Bottles, ceramic dishes, clay pipes and other debree tossed into the harbor between 1840-1920 depict an elaborate era forgotten by and unknown to many. In addition, sand dollars, sea cucumbers and other echinoderms frequent the waters of Seal Harbor.

BASS HARBOR LIGHT

Directions: From Bar Harbor follow route 233 to intersection 198. Turn right and drive to stop sign. Turn left on route 102 and drive through Somesville and Southwest Harbor. Follow route 102 .... miles beyond the junction of 102A and bear left at the first intersection. Continue .... miles beyond Bass Harbor Dive Shop and bear right. Follow this road to the end and park. To reach the shore, use the rough trail to the left of the light house.

Cautions: Roots and rocks along the rough trail make walking difficult. Watch your footing and do not overload yourself with gear. Be particularly careful on the stairs. Early morning dew often makes the steps slippery. Bass Harbor Light is open for day use only.

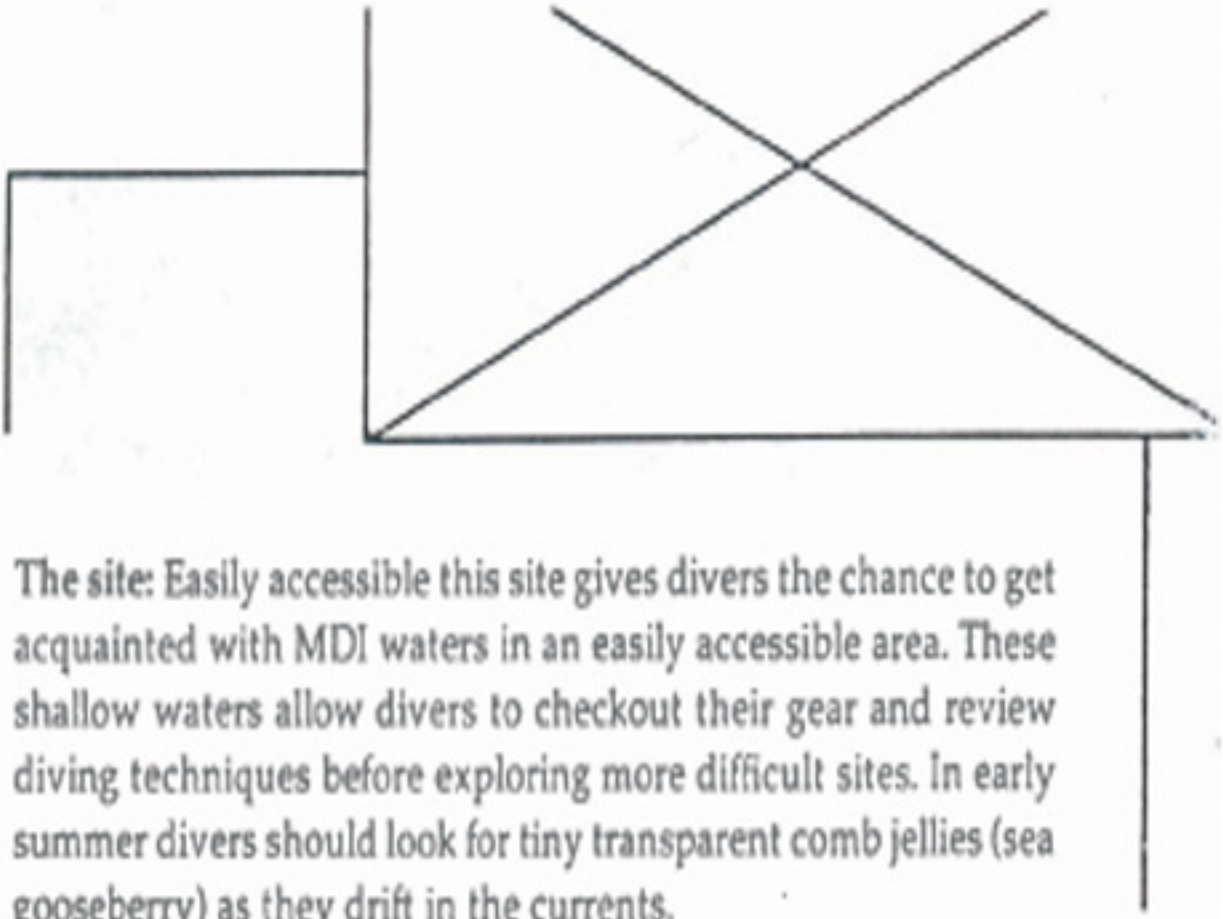


The site: Bass Harbor Light is one of the most frequently visited and photographed light houses in the country. Though it is now automated, several resident families manually operated the light for 116 years. Today, these buildings and grounds are privately owned and are not open to the public. There is, however, a public trail to the right which ends very close to the light tower. The beautiful diving, clanging bell buoy and soothing sunsets often unite to create an atmosphere appropriate for the island's most southern tip.

SEAL COVE

Directions: From Bar Harbor follow route 233 to intersection 198. Turn right and drive to stop sign. Turn left on 102 and drive through Somesville. Turn right at flashing yellow light and drive miles. You will pass Pretty Marsh junction and picnic area. Both ends of Cape Road join route 102. Turn right at either end and drive to the shore (near the public boat ramp.)

Geology: The ledges along Seal Cove's shore are part of the Ellsworth schist zone. Millions of years ago these rock beds shifted and left parallel veins of white quartz imbedded in the rock. The cliffs across from the boat ramp are part of the shatter zone mentioned on page . . . . .



The site: Easily accessible this site gives divers the chance to get acquainted with MDI waters in an easily accessible area. These shallow waters allow divers to checkout their gear and review diving techniques before exploring more difficult sites. In early summer divers should look for tiny transparent comb jellies (sea gooseberry) as they drift in the currents.

MOUNT DESERT ISLAND SHIPWRECKS

—SCHOONER TAY—

On July 27, 1911 Captain I. W. Scott of St. John N.B. set sail for Boston on the two masted schooner Tay with a large cargo of lumber. Six crewmen as well as the Captain's son accompanied Captain Scott on what was expected to be a routine lumber delivery.

As southeast winds grew progressively stronger the Tay battled gale winds and terrible seas. Despite these conditions the Captain held his course until the Tay sprang a serious leak. Attempts to repair the leak failed, and Captain Scott headed for a sheltered harbor. Gale winds made tacking treacherous and as the Tay came about her mainsheet parted and the main boom swung free. The Captain attempted to stand off shore with the remaining head sails, but the enormous breakers overpowered the Tay and pulled her toward the ledges of Great Head and Sand Beach. With one powerful crash, both fore and aft masts fell to the deck and the hull went to pieces. The deck load of shingles were swept away but the cargo of planks below deck washed on the shore of Sand Beach. After battling enormous waves, all but one man reached shore. J.B. Whelpley, the ship's cook, died in the wreck leaving a wife and three children.

The next day hundreds of people gathered to see the wreckage strewn all over Sand Beach. Needless to say, many Island residents reshingled their homes that summer. Every few years after a storm, the skeleton of the Tay momentarily reappears from beneath the beach sands.

—SCHOONER MAUD MALLOCK—

The 116 ton Calais schooner Maud Mallock, was built in 1868 in Perry, Maine. Taking advantage of the mild weather the young schooner heavily laden with lumber set sail on January 23, 1907 with Captain Charles Forward, of Boston and a crew of two. Unfortunately, the mild weather developed into a winter storm and the Maud Mallock quickly lost her bearings. Poor visibility and hurricane conditions altered her course, and before Captain Forward could react the Maud Mallock crashed ashore on Otter Point with such force that the Captain and crew were thrown overboard. Captain Forward desperately clung to the broken mast while the other crewmen struggled to reach shore. They eventually reached shore and found shelter in the nearby woods The next morning the Captain and crew left the debris-covered shore and walked to the nearest island home.

—GRAND DESIGN—

In the Fall of 1740, the Irish Merchant Ship "Grand Design" set sail for Pennsylvania with a large party of Irish immigrants. Although during its crossing the ship encountered several autumn squalls, it was New England's rough seas, high winds and rocky coast that ultimately claimed the wooden ship. Many believe the Grand design struck Long ledge while attempting to enter a nearby cove. The ship had been blown so far off course, both captain and crew were at the mercy of rocky, unfamiliar waters.

Although most of the passengers survived the wreck and reached shore, the approaching winter nights turned survival into a continual battle and many people died. Eventually a group of young men left the others to seek help, but were never heard from. Those who remained built shelters out of the ship's wreckage and waited several months for help. Although the others never returned, Indians carried word to the settlement in Warren, Maine and the few remaining starved women and children were rescued.

Apparently, two of the surviving Irish widows married men from Warren, and descendants from these families still live in Maine today.

—THE BARK WILLIAM CAREY—

In the spring of 1863, the British bark William Carey of London set sail for St. John, N.B. via St. Thomas. As she approached the waters of Mount Desert Island, a severe southeast gale forced her captain to anchor between Bass Harbor Head and Duck Island. Captain Williams repeatedly fired his cannons as a signal of distress. Luckily the inhabitants of Gott's Island heard the distant booms and found the William Carey at daybreak flying its flag of distress. Despite the fierce winds and rough seas, Captain Philip More of Gott's Island gathered volunteers who launched a small boat to reach the bark. After a long dangerous struggle, Captain Philip boarded the William Carey and at the request of Captain Williams immediately took charge. Because rough seas and high winds made lifting the anchors impossible, the chains were slipped and Captain Philip proudly sailed the William Carey into Bass Harbor. As they approached shore, the Captain ordered his crew to drop the anchor and sails. But, the momentum of the old British bark was too great for the remaining anchor and it crashed ashore. The crew and cargo were saved but the William Carey never sailed again.

For many years, pieces of the wreck lay bleaching on the beach. Although little remains on the beach today, many Bass Harbor homes still display relics of the old bark.

SEAFOOD RECIPES

Two of the following recipes are from A Foraging Vacation, Edibles from Maine's Sea and Shore by Raquel D. Boehmer. All other recipes are from Carie Bell, the most talented cook on the island!

GREEN SEA URCHIN

With a pair of scissors, cut a vertical line from the mouth half way up the urchin's side. Then cut horizontally all the way around the urchin and discard the top piece. Use a spoon to remove the yellow/orange roe. The bright orange-colored row is best.

Sea Urchin Caviar by Raquel Boehmer

3 urchins per person
Unsalted crackers
Lemon juice

Spread the row on a cracker and top with a few drops of lemon juice. Think of your favorite food as you chew.

Sauteed Sea Urchins by Carie Bell

Roe from 6-10 sea urchins
1 clove garlic (minced)
1 tsp lemon juice
1 tbsp unsalted butter

Saute the roe in butter and garlic until most of the butter is absorbed. Add lemon juice and mix. Serve as a pate with bread and crackers.

Steamed Sea Urchins by Raquel Boehmer

Roe from 6-10 sea urchins
2 tbsp mayonnaise
Freshly ground pepper (to taste)

Place the roe in a steamer above boiling water. Cover and steam for 3-5 minutes. Place the cooked roe in bowl with the mayonnaise and pepper.
Mash with a fork until you reach desired consistency. Serve on a cucumber slice or unsalted cracke

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ROCK CRAB

Crabs, like many arthropods, can regenerate lost appendages. For this reason, many fishermen only remove the two large front claws and throw the bodies back assuming they will regenerate their lost limbs. This practice, however, not only leaves the crabs defenseless, but it also prevents crabs from tearing or passing food to their mouths. Consequently, many clawless crabs are either quickly preyed apon by predators or die slowly of starvation. Do not think you are conserving the crab population by only taking crab claws. Either take the whole crab and make use of the other legs and body meat or take one claw and return the crab to the sea.

Steam or boil the crabs in a pot of saltwater and seaweed for 5-10 minutes after the water returns to a boil. After cooking, rinse in cold water; this will aid in removing the meat. Use a nut cracker or pliers to break the shells. Remove the meat with a toothpick or some sort of sharp probe. Although most of the meat is in the two front claws, more can be found under the carapace where the walking legs join together.

Although the task of removing meat is laborious, the eventual bowlful of tender delectable crab meat always makes it worthwhile. Fresh crab meat is so sweet and tasty very little needs to be added.

Butch's Delight By Carie Bell

1/2 lb. fresh crab meat
1 lg. sweet red or yellow pepper
2 tbsp. mayonnaise
1 tsp. scallion (minced)
1 tsp. fresh dill weed
Freshly ground pepper

Mix together the crab meat, mayonnaise, pepper and scallion. Cut the sweet pepper in half and discard the seeds. Fill the pepper shell with the crab meat and sprinkle fresh dill weed over the top. Serves two.

SCALLOPS

Remember that divers can not take scallops in the summer. Scallop season begins November 15 and ends april 15. See Diving Legalities, pp. .

SEVICHE by Carie Bell

1 lb. fresh raw scallops
1/2 cup lime juice (4 limes)
1/2 cup lemon juice (2 lemons)
2 tsp. fresh ginger root, finely chopped
2 tsp. fresh garlic, minced
1 med. red onion, sliced thin
1 tbsp. green chili, chopped
1/2 tsp. ground coriande

Slice the scallops into bite size pieces and set aside. Mix the other ingredients together in another bowl. Add the scallops and gently stir until well mixed. Tightly cover the bowl and refrigerate for at least 3 hours; preferably overnight. Serve as an appetizer or on a bed of lettuce.

DIVING LOG

Date _____
Dive # _____
Location: _____
Weather Forecast: _____
Tide: _____

Purpose of dive: _____
Dive Buddy: _____
Time in the water: _____

Time out of the water: _____
Maximum depth: _____
Average depth: _____

Description of dive: _____
_____
_____
_____
_____

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