PORT TOWNSEND
MARINE SCIENCE CENTER

Marine Exhibit Interpreter's Guide 2017

Inspiring Conservation of the Salish Sea

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Welcome, Marine Exhibit Interpreter!

The volunteers, interns, and staff are the people who make a visit to the Marine Science Center something to remember! Marine Exhibit docents welcome visitors, take admissions, and provide a friendly, informed presence in the exhibit, answering questions and helping to engage visitors in the exhibit. We live out the mission of the PTMSC, 'inspiring conservation of the Salish Sea" by making connections between visitors, the exhibit and the marine environment.

Docent Responsibilities

- Represent the PTMSC to visitors and the general public
- Wear your name badge, dress neatly and in a PTMSC shirt
- Log your hours in the Volunteer Database

When at the ME Front Desk:

- Welcome visitors, explaining we have two exhibit buildings included in admission price.
- Track and Charge Admission
- Explain the rules for the touch tanks
- Answer phone
- Answer visitor questions

When on the floor:

- Make sure that the rules are followed and that animals are treated with respect.
- Keep visitors safe by enforcing simple safety rules (For example, "No running")
- Answer questions and help visitors explore the exhibit, classroom exhibits, marine issues and Citizen Science projects happening in our Discovery Lab.
- Observe animal health and behavior, report to Exhibit Lead

As visitors depart:

- Remind them to visit NHE
- Stamp hands
- Promote upcoming event
- Offer hand sanitizer

Opening Duties (1st shift volunteers):
Arrive 10-15 minutes before your shift to assist the exhibit lead with opening:

- Collect Plankton
- Help uncover touch tanks
- Update the white board with date, weather and tides
- Open front doors
- Raise flag
- Once front doors open, put out signage on exterior wall
- Set up classroom

Closing Duties (2nd shift volunteers):

- Assist exhibit lead in closing (see opening tasks)

Marine Exhibit Rules

- *No food or drinks.* Closed bottles are okay, as long as they stay closed. Staff and volunteers may keep water bottles at the front desk. During certain programs food and beverages are allowed in the classroom. Food and drinks are not allowed in the main exhibit, to prevent either of these from accidentally getting into the tanks.

- *No dogs allowed.* Big, small, carried or leashed, no dogs are allowed in the building. This is for the comfort of all visitors as well as the safety of our animals and the dogs themselves.

- *Minors under 13 must be accompanied by an adult.*

- *No running or unsafe climbing.* Watch for anyone leaning on the touch tank outflow lids, they are made of foam and can not bear excessive weight.

Touch Rules

- *Two fingers, gentle touching.* Two fingers deters poking, which is usually done with one finger.

- *Don't pick anything up.* Many animals are attached, or don't like to be handled. To prevent damage and limit stress, animals are not to picked up.

- *Don't touch crabs or fish.* Some crabs may pinch, some fish may bite, and none enjoying being touched. Fish have a slime coat that protects them from injury and infection, touching them damages the slime coat and causes some species to shed scales. (Ray and shark touch experiences are in many large aquariums, these fish do not have slime coats.)

- *Don't touch the center of the anemones.* Use the model or point out the mouth and anus of the anemones. These should not be touched and definitely no fingers or hands should go into them.

- *Don't touch the underside of sea stars*. Tube feet may stick to hands and ripping the hand free may hurt the animals.

Marine Exhibit Hours

Spring:
First weekend of April through weekend before Memorial Day
Friday - Sunday 12 - 5 pm

Summer:
Memorial Day weekend through Labor Day weekend
Daily except Tuesdays 11 - 5 pm

Fall:
Weekend after Labor Day to Thanksgiving
Friday - Sunday 12 - 5 pm

Winter:
Marine Exhibit Closed, Natural History Exhibit open Friday - Sunday, 12 - 5 pm

Special Programs and Events

Seasonal, informal programs for the public augment the exhibits through spring and summer. These may include drop-in programs like Oceanography on the Pier, Public Feeds, Birding on the Pier, among others, which are included with admission or intended to be free for visitors. Regularly scheduled days and times are posted outside both buildings when these events occur.

Occasionally, larger public events take place during normal business hours. These include film showings, lectures, community events, and others.

Promote PTMSC events and programs by mentioning upcoming or relevant ones when talking with visitors.

Marine Exhibit Staffing
Each day, a staff member (Americorp, intern, or permanent staff) will be designated the exhibit lead. The exhibit lead is responsible for opening and closing the exhibit, assisting docents, and staffing the exhibit during busy times. The exhibit lead may also be feeding animals, working in the office, or performing other maintenance tasks, but they are always available to assist you. If there is only one docent, the exhibit lead will act as the second interpreter. The exhibit lead will also assist with interpretation whenever the exhibit is busy.

The Marine Exhibit is typically staffed by 2 docents. Docents are scheduled for 2.5 hours shifts during the spring and fall, 3 hour shifts in the summer. Docents will split their time with half of the shift spent at the front desk, and half as a roaming interpreter. At the beginning of each shift, the exhibit lead will identify who will start at the front desk. Halfway through the shift, docents will swap.

Please help keep the front desk clean and orderly – remove trash, recycle receipts, keep belongings out of sight, refresh displays.

The Marine Exhibit Building
The building and pier are owned by the state park. The PTMSC is a tenant of the park.

The marine exhibit consists of 5 areas; the exhibit area, classroom, discovery lab, kitchen, and office. In addition to the main exhibit area visitors are welcome in the classroom and discovery lab unless the rooms are being otherwise used. The kitchen and office are closed to visitors. Exhibit lead or other staff may close the discovery lab to visitors when workspace is needed or if there are not enough staff and volunteers to cover the area.

There is no fresh water inside the marine exhibit building. There is a fresh water hose on the pier. The sink in the kitchen is salt water and drains directly into the water below the pier. Because there are no filtered or treated drains at the Marine Exhibit, we do not use soaps or other chemicals in the sink. This is also why we do not have a handwashing station for visitors.

Cleaning the exhibit
Twice a year Marine Exhibit and Natural History Exhibit Buildings are deep cleaned by staff and volunteers. Regular sweeping, dusting, and emptying of garbage is done on work days. Docents can help by keeping the front desk neat and assist with sweeping, dusting or other tasks before opening the exhibit, or during slow times. Docents should report any needed repairs or maintenance to the exhibit lead who will in turn let the facilities and aquarist know.

Acrylic, which all of our clear tanks are made of, scratches easily. We minimize scratching by using tools that are free of sand and grit, and are considered “acrylic” safe. The outside of the tanks are cleaned with specially designated microfibre cloths, which are kept in the kitchen.

Animal Collection, Care & Husbandry
The aquarist is responsible for overseeing the care and husbandry of all of the animals in the marine exhibit. This is done with the help of volunteers and staff, including the docents.

Collecting Animals
We have a collection permit that allows us to collect and display the animals in our exhibit. They are from the Salish Sea, most from within 5 miles of the exhibit. Permitted volunteers and staff collect by hand or use nets. *We can not accept live animal donations from the public.* Some invertebrates, enter the tanks through our water system as plankton, then make their home here. Many of the tube worms and piling tank invertebrates arrive in this way.

Feeding
Depending on their needs, some animals are fed daily, while others only twice a week. Filter feeders such as the tube worms, plumose anemones, barnacles, and molluscs harvest the plankton in the natural seawater. Each day a staff member, usually the exhibit lead, is responsible for ensuring that the feeds for that day are carried out, sometimes with the assistance of volunteers. Algae eaters such as the urchins and abalone are fed bull kelp and other seaweed we collect. We cultivate brine shrimp for tiny mouthed pipefish and juvenile fish. Other animals are fed a diverse diet including clams, krill, squid, fish, shrimp and specialty aquarium foods.

Cleaning
Teams of volunteers and staff deep clean the tanks on Monday and Friday mornings. Light cleaning may be done before opening on other days as needed.

Observing Animal Health and Behavior
Docents and other exhibit staff are a vital part of maintaining the health of our animals. In addition to ensuring that touch rules are followed. They are also keen observers of changes in animal behavior and appearance. Docents should let the exhibit lead know of anything unusual they see, be it something new and exciting or concern for an animal. The exhibit lead can move animals if needed and will report any observations to the aquarist.

Wintertime
Traditionally the marine exhibit closes in the winter because the building is uninsulated and cold, limiting visitation and compromising staff/volunteer comfort. Closure also gives us time to work on maintenance and other projects. Permits may be obtained to release some animals if appropriate, however most animals remain here and continue to be cared for by volunteers and staff.

Aquarium Systems

We have a flow through or open system. This means that natural seawater is pumped from under the pier, through our tanks, and drains back under the pier. One benefit of this system is the plankton that flows through with the water and feeds our many filter feeders as well as bringing in larval animals that then settle in our tanks. One drawback is that we can not control the water quality. There is no filter. In rough waves or low tides the water can be cloudy and possibly hazardous for our animals. Viruses, bacteria, and parasites can also come in and infect our animals.

We take in water directly below the building. There are 2 pumps, and a backup pump at the ready. The intakes are covered by cylindrical metal screens with ⅛ inch slits. They are pulled out of the water and cleaned by staff several times a week. During cleaning, the pumps are shut down and water to the tanks will stop.

The pumps supply water to the head tank, a 550 gallon pool above the office and accessed by the drop down ladder in the lab. From the head tank water is gravity fed to each exhibit tank and the lab tanks through a network of pipes. Each tank has it own shut off valve.

The head tank has electronic sensors that shut off the pumps if water is too high or too low, indicating a problem with the pumps or drains. It also triggers an alarm called the sensaphone which automatically calls facilities staff and volunteers.

Each tank has an outflow pipe that dumps water back out under the pier. If a tank is overflowing, it is usually due to a dirty drain screen or clog.

Welcoming Visitors and Collecting Admission
Docents spend about half of their shift at the front desk, greeting visitors, collecting admission fees, and informing them of the touch rules and any special events that day.

- "Welcome to the Marine Science Center! Are you a member?" (This helps to establish that there is a fee, and that they too could be a member.)
- How many adults are there in your group?
- Have you already been to the Natural History Exhibit across the street? (These visitors will have a stamp.)
- The admission fee gives you admission to both buildings (when they are both open).

Point of Sale System
The POS system, besides serving as the register, also records the various types of admission. More information on this can be found at the greeter station in the Volunteer binder.

Introduction talk
This can be done by the person at the register or by another docent. If there is a line at the register, it is best to have another docent deliver the introduction.

- Which tanks are touch tanks
- Touching rules
    - Two fingers, gentle, no poking
    - No fish, crabs, anemone centers, or underside of sea stars
    - Do not pick anything up
- This is one of 2 buildings, get stamp on exit
- **Encourage visitors to explore and point out the other docents and staff who can answer their questions.**

Answering the Phone

"Marine Exhibit. This is _____. How can I help you?"

Most calls will be internal, usually the other exhibit staff. Any external calls will have gone through the main directory before reaching the Marine Exhibit extension.

Promote memberships and PTMSC events.
Without being pushy, suggest membership. For example: "Welcome to the Marine Science Center. Are you a member?" (You need to know whether they are members in order to let them in free.) If the person says no, you can ask whether they would like to be, so that they can get in free for a year, especially if it's a large family group coming in at the same time. Also take some time at the beginning of the shift to familiarize yourself with upcoming PTMSC events. If visitors have kids, you can give them a camp flyer or mention an upcoming family event. Adults might be interested in upcoming lectures or the Protection Island cruises. You can also do this after the visitor has spent some time in the exhibit, so that you don't delay and irritate them when they first arrive. Use your judgment.

Public Feed

Every Saturday at 2pm, this popular program attracts and engages visitors by giving them the opportunity to feed the urchins, sea stars, and anemones in our touch tanks. The program starts with a brief talk about the feeding behavior of each animal and instructions on how to assist with the feed. The exhibit lead usually delivers this talk.

During the public feed docents count attendees, watch the front desk, and assist with the feeding. During summer hours, the feed is timed to coincide with the volunteer shift change. We ask Saturday first shift volunteers stay until the end of the feed.

Plankton Microscope
Live zooplankton are collected prior to opening. Docents are welcome to learn how to collect plankton. Visitors can view the plankton with a stereo or dissecting microscope. The plankton is most often found in the Discovery Lab, but may also be in the lab doorway or classroom if the lab is closed.

Safety, Emergency and First Aid
In an emergency dial 911. There is a phone at the front desk. Then notify other staff and volunteers.

Staff are trained in first aid. First aid kits are located at the front desk, in the discovery lab, and in the office. We do not give out medications.

Foul Weather
Exhibit leads, by themselves or in consultation with PTMSC leadership, may close the building if weather conditions are hazardous. Conditions for considering closure include, high winds of greater than 28 knots (sustained), or expectation of lightning in the immediate area. If lightning is nearby, follow the 30-30 rule and keep all hands out of water. Do not close the building if it is unsafe for visitors to leave.

The '30-30 rule' offers the best lightning safety guidance for the general public. When you see lightning, count the time until you hear thunder. If that is 30 seconds or less, the thunderstorm is close enough to be dangerous. Wait 30 minutes or more after a close (within 30 seconds) lightning flash before leaving shelter and resuming activity.

Earthquake and Tsunami Evacuation
Following an earthquake or in response to a Tsunami warning, the first priority is to get volunteers and guests off the pier and up to the flagpole (emergency muster station for the park). Elderly volunteers or guests may need assistance getting off the pier and a vehicle *may* be used to assist them off the pier, if it is deemed safe to do so by the staff member in charge or park ranger.

There are monthly tests of the park-wide Tsunami Alert on the first Monday of each month at 12:00pm.

Your Role as an Interpreter

Be yourself
Genuine interest and attention is what people will remember, more than facts. We teach more by sharing our enthusiasm than by pouring out the facts we have learned! Our docents are what make the experience of coming to PTMSC so rewarding.

Credibility
Now that we've said that, it's also important to stress that credibility is important. It's all right to say, "Good question! I don't know, but I will find out."

Teach *how* to learn. There are always other volunteers and staff to ask, as well as resource books. It's ok to help someone look up information at our reference station.

Model behavior, skills and attitudes
Show, with your attention, that you care for the visitor. Model best practices when interacting with the animals and their environments. Teach about how to treat the animals, by example.

Observe first, label last
We tend to label animals and plants — and forget to really look. Look closely until you can distinguish unique characteristics and behaviors about the animals. Help visitors focus on the small differences. Ask *them* to describe the plant or animal (or ask if they can tell which it is!), and talk about where they may have seen it before or where to look for it outside the aquarium. Keep vocabulary simple.

Don't forget about the kelps and other algae! Visitors and staff tend to overlook the algae in our exhibit. You can mention how some of these colonize themselves in our exhibit and also how they differ from land plants. If you don't know, ask!

Be enthusiastic about discovery
Though you may have watched a sunflower star eat many times, for a visitor this may be a first. Keep your enthusiasm high by relating to each person in turn and caring about their short experience here. Perhaps share something else about the star that intrigues you, or something that you would like to learn more about. Being a good listener is essential.

Engage learners in dialogue
Even if a visitor asks you a simple question, do your best to engage them in dialogue rather than offering a lengthy monologue. Discuss rather than tell. Pretend that each visitor is a favorite friend or relative; have a conversation, tell (and listen to!) stories about experiences with the animals or the sea. Visitors often want to tell a story about a previous encounter with marine life. You and they can learn from these stories.

Frequently Asked Questions - Non PTMSC

Where are the restrooms located?
The public restrooms are at the end of the dock, in the same building as the store but on the far right side.

Does the Discover Pass cover the cost of admission to PTMSC?
No, the Discover Pass does not include admission to the Marine Exhibit because we are independent of them and not supported by state funds or the pass. We are supported by donations, grants, and fees. Free parking is available for PTMSC visitors.

What is there to do in PT? Do you know a good restaurant?
If you find yourself searching for answers, give the visitor one of the free maps and guides available in the gift shop. They are provided by the Chamber of Commerce — another place to get information. You can also say your favorite restaurant, but don't give bad reviews of a place you don't like.

Where to go tidepooling?
In Fort Worden, Kinzie Beach, near Battery Kinzie, is a good location. Further afield Salt Creek Recreation Area is a popular spot. Remember when tidepooling to lift not roll rocks, don't pry animals off, observe in place and return everything to how you found it.

Is fishing or crabbing allowed off the dock?
When the relevant season is open, yes. People need to know the regulations... a copy should be nearby, or check with online.

Where is a good spot to dig for clams? How do I know if they are safe?
Clammers should refer to the WA Dept of Fish and Wildlife for full information. (http://wdfw.wa.gov/fishing/shellfish/) You are allowed to clam at most state and county parks with a shellfish license, but not at Fort Worden.

PTMSC is part of the **Paralytic Shellfish Poisoning Detection Network.** Volunteers collect and send mussels for analysis biweekly in a program run by **WA Department of Health** that monitors shellfish for biotoxins. We collect from the floating dock at Ft. Worden.

Beach closures and information on PSP (paralytic shellfish poisoning) can be found on the Dept of Health website: https://fortress.wa.gov/doh/eh/maps/biotoxin/biotoxin.html
There is also a "Red Tide Hotline" that you can call 1-800-562-5632.

FAQ- PTMSC Related

Do you have a formal training program for your volunteers?
Yes. We offer formal docent trainings in the Spring, We also offer special training for volunteers who work in our Natural History Exhibit. Once a person completes the training, they are encouraged to commit to 8 hours or more a month during our busy season. Volunteers work with the public, help feed the animals and maintain the tanks, participate in scientific

research and monitoring, serve on the Board and committees, assist with fundraising events and many other tasks. Anyone interested in volunteering should view our website or contact volunteer@ptmsc.org

How long has the Center been in operation?
The PTMSC was started by volunteers (Judy & Frank D'Amore and Libby Palmer) in 1982. The ME underwent a major renovation in 2000- 2001, the same time that the Natural History Exhibit opened.

How is the Marine Center funded?
The PTMSC is a non-profit corporation with a Board of directors. The Center depends heavily on volunteers. Funding comes from: donations, grants, fees for education programs, admission fees and gift shop sales.

How many visitors go through the Center in a year?
We have approximately 20,000 visitors each year, including education program participants.

Further Reading

PTMSC Resources
These internal documents include valuable information for docents and exhibit staff. They can be found in the docent binder at the front desk.

- Marine Ecology PTMSC
- General Tank Descriptions
- Citizen Science Project Summaries
- How to Use the Register
- Exhibit Updates (Email)

PTMSC Library
Reference books kept at the front desk are for your use on the exhibit when answering your own or visitor questions. Books in the cupboards in the Discovery Lab and Natural History Building are available for checkout.

Learning about the Exhibit and Marine Biology

Most of us have had a biology class somewhere along the line, but volunteering at the PTMSC may be a first experience working with wild animals. Or, you may have had a career in the life sciences and be extremely knowledgeable when you start docenting. Either way, everyone is guaranteed to learn something new by working in the Marine Exhibit and observing what happens and changes. There is always something spawning, taking over, dying, eating or being eaten.

There are a lot of animals in the exhibit; do not expect to get a grasp on all of them at once. Here are some suggestions for becoming comfortable and knowledgeable about the animals at the Center.

Where to Start

Our mission at the PTMSc is "Inspiring Conservation of the Salish Sea." We want to help our visitors make connections between the animals who live here, the characteristics of their habitats, their place in the food web, their adaptations for survival, and ultimately the need for us to restore and maintain a healthy planet by the life choices we make.

Starting with one animal...

Read class handouts and lecture notes, study some of the field guides (we are always happy to suggest a place to begin), observe veteran volunteers, participate in public programs and volunteer enrichment classes.

Once you begin to learn about one or two favorite animals, you may find that adding new information on others will come easier. Keep in mind that what is most interesting for you will be what visitors are interested in as well; there is no need to memorize facts that are not relevant.

As you get familiar with an animal, consider its unique adaptations for:

- Where does it live? On a rocky beach? On a sand bottom? Among cobbles? In the open ocean?
- How does move? Swim? Scurry? Crawl? Cling onto things? Bury down?
- What does it eat? Plankton? Is it a predator? A scavenger? Vegetarian?
- How does it eat? What part of the body catches the food? Does it have a way to tear apart food or does it digest prey with juices?
- How does it stay wet? If the animal lives in the intertidal, how does it keep moist during low tide?
- How does it protect itself? Does it hide? Use camouflage? Have spines, teeth, claws, poisons, barbs....or just look dangerous?

- How does it reproduce? Internal or external fertilization? Hermaphroditic or separate sexes? Does it care for its young?

- Any other interesting information such as importance to medicine or myths?

Ways to Learn and Keep Learning about the Exhibit

Everyone has their own best ways of learning. Some learn by reading, some by hearing, and some by physically interacting with their environment. Most of us know intuitively or after thinking about it, which learning methods work best for them. Following are a few methods commonly used:

- Observe, observe, observe.

- Ask questions of other docents or staff. Do not hesitate to ask — *no* question is silly or unimportant. If you have the question, chances are, so will a visitor.

- Start a notebook on the major animal phyla. Add hand-outs, news article reprints and any other material that comes your way.

- Create an index-card file of animals, writing the common name on one side and information on the back so that you can quiz yourself. Note cards are easy to carry around and appropriate to use in the exhibit to answer questions.

- When coming to the PTMSC, try to come a little earlier or stay a bit longer to observe the animals, check out books or ask questions.

- Review the information on the front desk and in the resource area.

- Participate in the volunteer enrichment classes and field trips. Take the opportunity to attend some of our public programs as well as programs at other aquariums.

- Go to websites with information on marine animals. Websites like Wikipedia have some good basic information. Check out the resources at the end of this guide for other ideas.

Interpreting the Exhibit with Visitors

Inspire! Teaching isn't about being an expert. It's about helping visitors discover the beauty and the drama of our natural world.

When you are first learning to be a docent, it helps to identify something interesting or a fact about each tank. Then make sure you keep learning, or you will surely become as bored repeating the same facts as you would hearing someone else tell you the same thing over and over! Have a goal of learning or seeing something new each time you work in the exhibit.

Example:
If a child points to a crab and asks you about it, how do you choose your response?

-- You could give the child a direct answer, "That's a Red Rock Crab or *Cancer productus*."

-- You could pull out a field guide and show the child how to look up the crab her or himself (this is a great way to learn about more than just about *Cancer productus*).

-- You could point to the pictures on the wall and ask if the child sees the crab pictured there, or take the opportunity to give them a laminated guide (that goes with the wall pictures)

-- You could follow up with "Let's watch it and see how it moves."

-- You could also talk about its red color and how this might have something to do with its name, or talk about other attributes of the crab from the strength of its claws, to what it likes to eat, to the habitat it needs to live in. But resist the opportunity to rattle off every single fact you know about the creature. Help the visitor explore!

These are all appropriate answers to the child's questions. The more you observe and learn, the more interesting and effective you can be as a docent.