



PORT TOWNSEND
MARINE SCIENCE CENTER

Aquarium Interpreter's Guide 2019 Edition

Inspiring Conservation of the Salish Sea

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Welcome, Aquarium Interpreter!

The volunteers, interns, and staff are the people who make a visit to the Marine Science Center something to remember! Aquarium docents welcome visitors, take admissions, and provide a friendly, informed presence in the Aquarium by answering questions and helping to engage visitors in the Aquarium. We live out the mission of the PTMSC, “inspiring conservation of the Salish Sea”, by making connections between visitors, the Aquarium 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 Aquarium 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 Aquarium, 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 the Museum
- Stamp hands
- Promote upcoming events

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
- Open front doors
- Set up classroom
- Once classroom and Aquarium are set up, put out signage on exterior wall

Closing Duties (2nd shift volunteers):

- Assist exhibit lead in closing (see opening tasks)

Aquarium 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 Aquarium, to prevent either of these from accidentally getting into the tanks.
- *No pets allowed.* This is a state parks policy. Service animals are allowed. Service animals do not need to be wearing any identifying marks or carry any paperwork. If the animal is misbehaving in the exhibit you may ask them to leave. See the full regulations in the docent binder.
- *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. You can not pick thing up with two fingers (no thumbs).
- *Don't touch fish or crabs.* 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.)

Bad Ideas to correct if seen (these are not gentle touching)

- *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 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. If stuck, its best to remove hand from water and sea star will let go. Or, slide sideways, don't pull.

Aquarium Hours

Spring:

Last weekend of March 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:

Aquarium Closed, Museum 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 Public Feeds, and 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.

Aquarium 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 Aquarium, assisting docents, and staffing the Aquarium 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 Aquarium is busy.

The Aquarium 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 Aquarium Building

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

The building consists of 6 areas; the aquarium, classroom, discovery lab, conservation lab, kitchen, and office. Visitors are welcome in the aquarium, classroom and conservation lab unless the rooms are being otherwise used. The kitchen and office are closed to visitors. The discovery lab is open to viewing and staff or volunteers may invite visitors into the lab. Visitors are not allowed unaccompanied into the discovery lab.

There is no fresh water inside the Aquarium 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 Aquarium, 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 Aquarium

Docents can help by keeping the front desk neat and assist with sweeping, dusting or other tasks before opening the Aquarium, 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 Aquarium. 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 Aquarium. They are from the Salish Sea, most from within 5 miles of the Aquarium. 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 Aquarium 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 Aquarium 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.

Animal Husbandry & Health

We monitor animal appearance, behavior and health daily. Please let the exhibit lead know if you see anything you think is unusual. We focus on providing quality care for aquarium appropriate species that enables them to have long healthy lives with us. Most animals are lifelong residents once collected. Some animals in the exhibit are relatively short lived, such as pipefish and nudibranch others, like the urchins have natural life spans that are over 100 years. Of course, as in the wild sickness and predation can occur. Our flow through system

can not prevent parasites and diseases from entering. Animals that are sick may be moved to off exhibit tanks to quarantine them.

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 $\frac{1}{8}$ inch slits. They are pulled out of the water and cleaned by staff weekly. 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 discovery lab. From the head tank, water is gravity fed to each Aquarium tank and the lab tanks through a network of pipes. Each tank has its 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.

The flow rate in each tank varies according to the habitat it represents and the capabilities of the tanks, pipes, and pumps. On average, we aim for all the water in the tank to be exchanged twice an hour. Eductors, air stones, and powerhead pumps help to create more water movement in the tanks and reduce dead zones.

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! Have you been here before?/ Are you familiar with our organization?/ Are you a member?/
- How many are there in your group?
- 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 front desk 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.

- This is one of 2 buildings, get stamp on exit
- Which tanks are touch tanks
- Touching rules
 - Two fingers, gentle, no poking.
 - Don't touch the fish or crabs
- Encourage visitors to explore and point out the other docents and staff who can answer their questions.

Answering the Phone

"Aquarium. 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 Aquarium 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 Aquarium, so that you don't delay and irritate them when they first arrive. Use your judgment.

Feed the Animals

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 kelp forests and the rocky intertidal habitats. 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 to stay until the end of the feed.

Plankton Microscope

Live plankton 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 station is part of the Conservation Lab.

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 Aquarium. You can mention how some of these colonize themselves in our Aquarium 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 Aquarium 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 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.

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

How can someone become a PTMSC volunteer? What kinds of volunteer jobs are there?

We try to have monthly volunteer orientations. There are additional trainings for each volunteer role as needed.

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 [Volunteer web page](#) 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 Aquarium underwent a major renovation in 2000-2001, the same time that the Museum opened.

How is PTMSC 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 Aquarium staff. They can be found in the docent binder at the front desk.

- Monthly Animal Inventory
- Citizen Science Project Summaries
- How to Use the Register
- Aquarium Updates (Email)

PTMSC Library

Reference books kept at the front desk and in the reference section in the volunteer cupboard in the Discovery Lab. Books in the “Library” in the small building behind the Museum are available for checkout.