

# Tillamook County Pioneer Museum

# Kilchis Point Reserve



## Teacher Packet

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## **Introduction**

The Kilchis Point Education Program is open to all school groups that would like to experience the history and natural beauty at Kilchis Point Reserve. Tillamook County Pioneer Museum (TCPM) has a variety of outdoor education lessons and activities for various grade levels that are curriculum-based. Whether it is an hour or three hours, TCPM staff and volunteers will do what they can to create an educational and memorable experience for students.

Lessons and activities are centered on environmental education, pioneer history, or Native American history that is specific to the site.

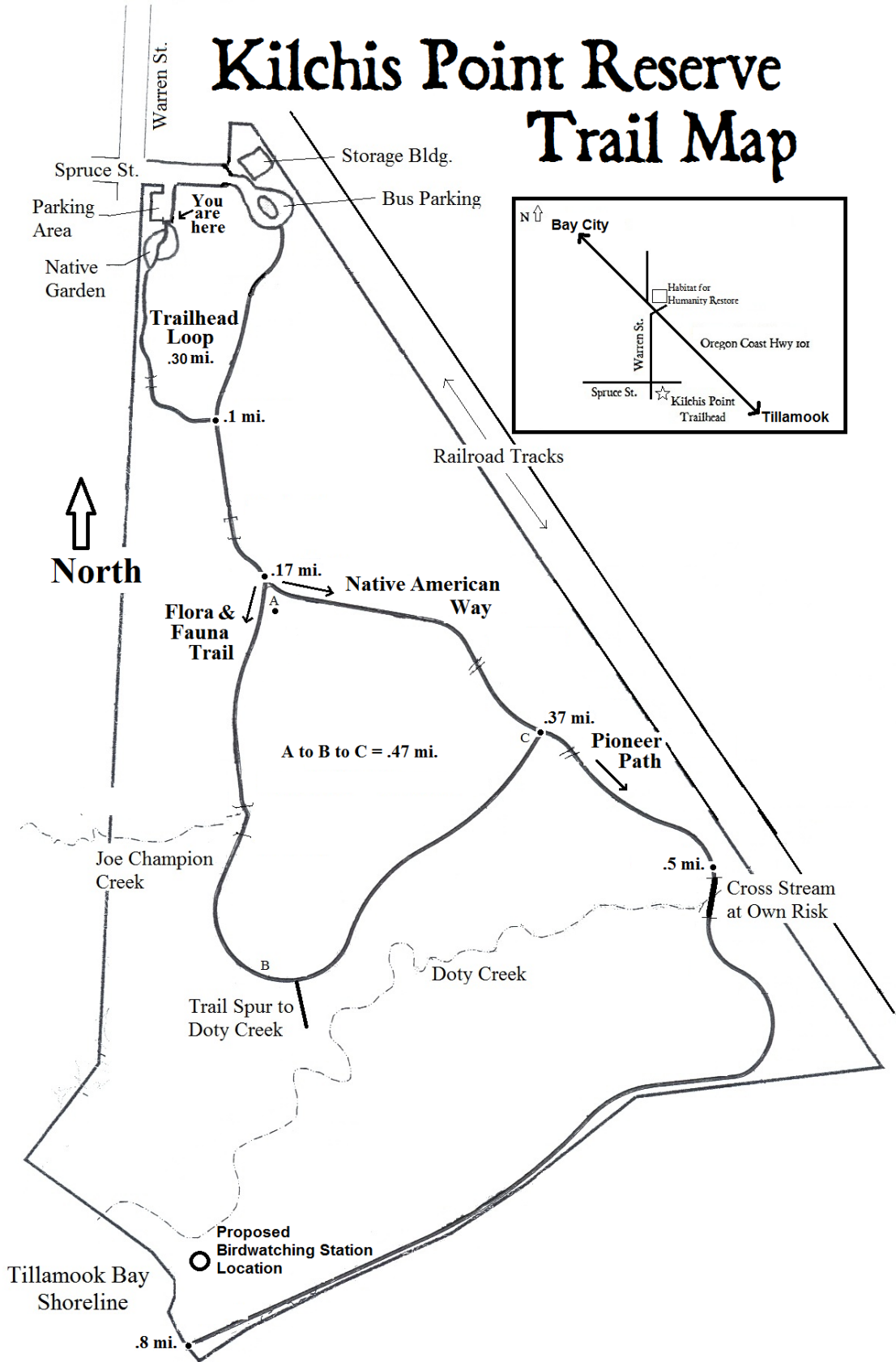
It is the goal of TCPM to promote student appreciation and understanding of Tillamook's natural and cultural resources while encouraging the protection and stewardship of resources, environments, and habitats.

## **What is Kilchis Point Reserve?**

Kilchis Point Reserve is a protected wetland and woodland area located along the Tillamook Bay in Bay City, Oregon. The Tillamook County Pioneer Museum (TCPM) owns, protects, maintains, and holds approximately 200 acres of this land in the public trust. Kilchis Point is home to a wide variety of plants (flora) and animals (fauna) that together form precious ecosystems.

The Reserve is located on the west side of Bay City, at the corner of Spruce and Warren Streets. Click [HERE](#) for a Google Map of the Trailhead.

Approximately two miles of trails allow visitors to explore the area and the rich history of the site through three interpretive trails that highlight (1) Flora and Fauna, (2) Native American Heritage, and (2) Pioneer Settlement.



## **Brief History of Kilchis Point Reserve**

A rich history, both historic and prehistoric is centered at Kilchis Point. Joe Champion was the first pioneer settler to arrive in the Tillamook area in April of 1851 and settled at Kilchis Point. He was welcomed by the leader of the Tillamook tribe, Chief Kilchis, for which the Kilchis River and Kilchis Point are named. Champion made a temporary home out of a spruce stump near the Tillamook village. Settlers continued to arrive in the Tillamook area during the 1850s and many settled on and near Kilchis Point including Samuel Howard, Warren Vaughn, Obed Thomas, Hiram Smith, and Peter Morgan. Kilchis Point was also the site of a post office in 1871, and the Whitney Logging Headquarters.

Prior to the arrival of the pioneer settlers, Kilchis Point was home to one of the largest Native American villages on the Northern Oregon Coast. The Tillamook tribe had eight village sites along Tillamook Bay where the freshwater rivers met the bay. The largest of the eight villages was located at Kilchis Point. Although the Lewis and Clark expedition did not travel as far south as Tillamook Bay, Captain William Clark estimated the number of Tillamook Natives at Kilchis Point to be 2,200 when he met with members of the Tillamook and Clatsop tribes near Cannon Beach in 1806. By this time, waves of disease had already decimated the native populations throughout Oregon and along the coast. It is unknown how many native peoples lived along Tillamook Bay and at Kilchis Point prior to the European contact and disease. A prehistoric fishing weir has been located on the Kilchis Point property and has been carbon dated to 1420 years ago.

In addition to its rich history, Kilchis Point is home to an array of plant and animal species. Wetland and woodland habitats support a variety of trees, plants and grasses. Over 140 plant, tree, moss, and mushroom species have been identified at Kilchis Point. These diverse habitats support a variety of animals such as deer, black bear, bobcat, beaver, salmon species, salamander, Great Blue Heron, owls, and birds of prey. Over 60 bird species have been identified to date from Bald Eagles to hummingbirds. Birds of all sizes find refuge at Kilchis Point.

## Education Program

TCPM encourages all grade levels to explore Kilchis Point Reserve. Educational programming is free for school groups, although a donation is very much appreciated. We ask for **at least three weeks' notice to schedule a field trip**. TCPM requires a ratio of one (1) teacher/adult to every four (4) students/children.

Teachers can request to have a museum representative come to their classroom prior to a field trip to give a short introductory presentation. Museum staff will bring interactive materials such as artifacts, maps, and pictures to tell the story of Kilchis Point as well as tell students what they can expect to see, find, and experience.

If there is a subject or topic your class is studying and you do not find material in this packet that will be helpful, please contact us! We will do all we can to ensure your visit to Kilchis Point is educational, fun, and relevant to your curriculum.

In 2011 and 2012, the Tillamook County Pioneer Museum partnered with Tillamook Estuaries Partnership to provide grant funding for The Willow Project. This environmental education program brought together South Prairie second graders and eighth grade science students to learn together at Kilchis Point Reserve. The students learned about habitats, the scientific method, and environmental stewardship through multiple field trips to Kilchis Point Reserve.

## Scheduling a Visit and Planning a Field Trip

Field trips are available Tuesday thru Friday between the hours of 10am – 3pm. Please notify the museum **3 weeks prior** to your anticipated visit date. This is especially important if you are requesting a pre-classroom visit. Due to the popularity of the Reserve as an educational setting, it is vital that teachers schedule a visit well in advance of their desired field trip date.

To schedule a visit please complete the "Field Trip Request Form" on the [tcpm.org](http://tcpm.org) website, under the "teachers/educators" tab.

A school bus compensation program has been set up to assist educators with the cost of transportation for their students. Teachers must fill out the "Bus

Assistance Form" located on the tcpm.org website, under the "teachers/educators" tab.

Contact the Museum with any questions you have about a field trip. Staff will be able to offer insight into the various activities that best meet your learning objectives.

If you have any questions about your field trip, please don't hesitate to contact the Museum at 503-842-4553.

## **Field Trip Etiquette and What You Can Expect**

The museum strives to create positive experiences for all visitors. We ask that teachers and adult chaperones ensure responsible and safe behavior of all students at all times. The Pioneer Museum reserves the right to ask any students or classes to leave due to unruly, disruptive, or unsafe behavior.

Kilchis Point Reserve is an outdoor area therefore we strongly encourage all visitors to **dress for the weather**. We recommend hiking boots or rain boots and waterproof jackets if it is likely to rain.

Amenities at the site include:

- Six picnic tables plus one picnic table in the woods
- Trash receptacles
- Toilet
- Indoor storage shed that may only be used if TCPM staff are present

As with all natural areas there are things that teachers, chaperones, and students need to be aware of:

- The trails are ADA accessible and are level and easy to walk. Students are still asked to pay attention to where they are going.
- For student safety and that of the wildlife, we ask that students refrain from picking up or touching animals, reptiles, or amphibians without first asking TCPM staff. The Rough-skinned Newt is one such example of an amphibian that should not be handled. The Rough-skinned newt releases a neurotoxin that can cause skin irritation if handled (or possibly death if the newt is licked or ingested).

- If hiking to Doty Creek, teachers and chaperones must keep a close eye on students at all times. This area can be dangerous with hidden holes, steep and unstable banks, and tidal waters.

## **Available Activities/Lessons**

Below are examples of lessons and activities that you can choose from for you visit. There are a variety of activities and lessons for all grade levels. Below is a detailed list of activities that were designed for second grade students but many can be adapted for higher grade levels. In addition, the list of "other activities" found on page 9, are designed for grades 3-6. Upon request, we can supply teachers with the education standards for each activity.

### **Scientific Inquiry**

Scientific inquiry is a process used to explore the natural world using evidence from observations.

Students will:

- Prepare scientific inquiry wheel for easy reference for remainder of school year
- Observe
- Ask questions

### **Plant Characteristic and Observation**

Students will:

- Ask a question that can be tested by doing an investigation
- Make inferences to explain observations
- Identify major groups of plants
- Learn that plants reproduce in different ways
- Learn that scientists classify and categorize plants into groups according to their physical characteristics
- Learn that some plants change in response to changes in seasons

### **Habitat Hunt: Finding and Comparing Habitats**

Students will be able to:

- Define the term habitat
- Identify the basic needs of a wildlife species
- Differentiate between two kinds of wildlife habitats

- Apply understanding of habitats to find a suitable habitat for their animal/plant
- Ask and address questions about the natural world using the scientific inquiry model
- Observe, explore, and discover
- Work together and share their ideas

### **Habitat Diversity: Collecting Data in a Defined Space**

Students will:

- Create tools to measure biodiversity in their community
- Conduct a scientific field investigation
- Have a greater understanding of biodiversity
- Learn basic methods of plant species identification and be able to differentiate plants

### **Around and Around We Go: Life Cycle of Plants**

Students will:

- Learn the phases of a plant lifecycle
- Learn to identify a plant's stage in its lifecycle
- Gain an understanding on how plants grow and reproduce

### **Vegetative Reproduction**

Students will:

- Identify and describe the parts of a plant
- Learn how to successfully plant a cutting
- Understand the steps of making a plant cutting and can explain them to others
- Differentiate between types of plants
- Describe the needs of plants

### **The Big Bully: A Study of Invasive Species**

Students will:

- Identify limiting factors affecting populations of native plants
- Identify positive factors, helping native plant growth
- Predict the effects of such limiting factors
- Describe the effects of habitat loss and degradation on population of native plants
- Make inferences about the importance of suitable habitat for native plants
- Learn about the fascinating life of native plants



## **Draw-A-Bird**

Students will:

- Describe adaptations of birds to their environment
- Explain how the adaptive characteristics of a bird enable it to survive in its environment
- Describe why extinction of species could occur when the environment changes and the adaptive characteristics of the species are insufficient for its survival.

## **The Importance of Cedar in Native American Culture**

This lesson is designed to increase the student's awareness of how important the cedar trees were for the Tillamook Native Americans and to experience the medium of cedar bark in making a craft.

## **Other Activities:**

These activities may be adjusted to suit a variety of grade levels.

- *Scavenger Hunt*: Students complete a scavenger hunt during their hikes to Doty Creek and/or to Tillamook Bay.
- *Wetland, Woodland, and Bay Habitats*: Students visit each of these habitats and record what makes each special through observations.
- *Food Web*: An interactive food web game is fun for all grade levels. Each student is given a nametag with a native plant or animal on it. The tag is placed on the back of each student and they must ask their classmates questions in order to determine what plant or animal they are. After each student knows what they are, they form a circle and using string, create a complex food web. An easier version of this activity had been developed for younger students.
- *Oil Spill Activity*: Students subject feathers to oil and wash them to observe the effects oil has on birds and their habitat.
- *Compare and Contrast Habitats*: Students use their observation skills such as sight, smell, and hearing to compare three different habitats at Kilchis Point Reserve.
- *Compass Activity*: Designed for students in 5<sup>th</sup> grade and up, this activity gets students comfortable with using a compass. They learn how to travel in the four cardinal directions and use the various degrees of the compass. After an introductory explanation, students use what they have learned to complete a compass course by following compass coordinates given to them.

- *Owl Pellet Dissection*: Students can participate in an owl pellet dissection at Kilchis Point. Students learn about owls and their ecology in addition to what they eat during this activity. TCPM provides the owl pellets, gloves, diagrams of vole/mole species, dissection tools, and masks if needed. Students can also use microscopes or magnify glasses to inspect contents of the pellets further.

Resources provided by TCPM for students to use during their visit include:

- Kilchis Point Plant guide
- Kilchis Point Animal guide
- Kilchis Point Bird guide
- Magnifying glasses
- Pencils
- Activity worksheets if needed for selected activities
- Binoculars and spotting scope