

*Interactive Guide
to the*

Arcata Marsh & Wildlife Sanctuary

Created by
**Redwood Coast
Montessori High School**

Klopp Lake
Photo credit: Spifferella

How does the Arcata Marsh connect our community?

RCM students help you discover the answers to this question throughout this **interactive guide**. Each topic shows how the natural community and our local community are intricately connected at the Arcata Marsh.

Click on the silhouettes for the **interactive links**.



Marsh Wildlife



Spring



Summer



Fall



Winter

The **Arcata Marsh** is home to a wide variety of habitats spanning from the ponds where ducks dabble, to the glassy bay where the herons stalk their meals. Where the land meets the bay, you'll find small sandpipers probing the shore. Each plant taking hold, spreading its roots through the earth provides home for the wrens and nutrients for the waterfowl. The beautiful **ecosystem** makes it a common destination for birders and other nature enthusiasts alike.

In addition, the marsh is a stop on the **Pacific Flyway**, a route which is taken by thousands of migrating birds. This means that many species can be seen there in the spring and fall.

The large variety of different **organisms** allow the marsh to flourish. They all work together to make a better environment. Ecologists call this **biodiversity**. If you think about biodiversity in terms of a web, every strand is connected and dependent on another for support. Each animal brings a unique role to benefit the ecosystem.

Our field guide covers **27 species** which is a small portion of the hundreds located here. Each of these animals plays an important role in the ecosystem, creating a vast network of abundant life for all to enjoy.

Arcata Marsh Over The Years

From the beginning, the Arcata Marsh has changed in response to various demands natural and man made. For a long time the marsh was not impacted negatively by human activity. The Wiyot tribe inhabited the Arcata marshland. The tidal flats, sloughs, brackish marshes, and seasonal wetlands help sustain the tribe. They provided food like fish, crustaceans, plants, and marine mammals for hundreds of years. The fact that they could live in harmony with their environment made them an important part of history.

One of the things that interrupted that harmony and that impacted the marsh was logging. The railroad and logging impacted the marsh significantly. The animals had to flee and find new homes or had to adapt to steam locomotives shaking the ground with massive logs being dropped into the pond. Another aspect of the logging that was taking place were log ponds.

Logging was an important part of the economy during that time though because of redwood tree imports to San Francisco. As protection for coast redwoods grew and the need for lumber decreased, the neighboring oxidation pond was built for the marsh project and was later diked off in 1965 to create a landfill.

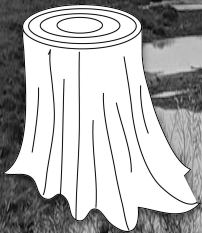
Although logging has had a big impact on the environment and Wiyot tribe, the Eureka, City Council has returned 40 acres of Indian Island to the **tribe**. They lost the **land** in an 1860 massacre. The tribe received their land back on October 21, 2019.



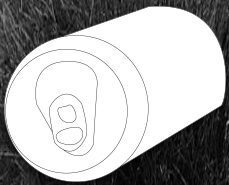
Wiyot Tribe



The Wharf



Logging



Landfill



Wastewater Treatment

Plants of the Marsh

The Arcata Marsh is home to hundreds of plant species. **Native plants** seamlessly connect the fabric of **diversity** that is a hallmark of this special ecosystem. **Non-native** plants are noticeable members of the community that impact the diversity of plant life at the marsh.

This guide covers a few of each, adding insight into what the Arcata Marsh contains.



**Native
Plants**



**Non-native
Plants**

Humboldt Bay Oysters

Two Sides to Our Beloved Bivalves



Oyster Filtration



Stopover Habitat

People have been fishing for Oysters in Humboldt Bay for hundreds of years. Even before the Europeans settled, Native Americans were harvesting the native Olympia Oysters. Humboldt County still eats Oysters in abundance. They have large nutritional value and also help keep people healthy. Each June at Arcata's Oyster Festival, an annual event with Oyster tasting and music, **more than 100,000 Oysters are consumed..** This is one of the ways that Humboldt Bay is integrated within our community.

Oyster farming is a very prosperous business. **More than 70% of California's Kumamoto and Pacific Oyster production comes from Humboldt County.** However, Oyster farming can be damaging to the environmental community; specifically, the stopover habitats of migratory shorebirds. The structures used disrupt the populations of eelgrass in the mudflats, and the machinery and activity scares away the shorebirds. Oyster farming is already abundant in Humboldt County, and local oyster farmers have gone to great lengths to ensure Humboldt Bay oyster farms are sustainable. Because of oyster farmer's working closely with wildlife agencies, , Humboldt Bay will remain a stopover habitat used by hundreds of thousands of birds every year.

While the ways that Oysters are farmed are harmful to the environment their natural way of life is helpful to the environment. **Oysters are natural water purifiers and can filter up to 50 gallons of water per day.** Oysters filter out excess nitrogen from the water which often comes from fertilizer and septic tank runoff. Oysters are a natural way of dealing with human pollutants. They connect us to Humboldt Bay through helping us keep our oceans clean of our own waste.

Oysters are a large part of the Humboldt's community through their profitable industry and biological filtering mechanisms. In 2016 the Oyster industry brought in 19.3 million dollars, providing roughly 100 full-time jobs.. Their nutritious value creates a stable business for Humboldt. In addition to that Oysters also help us by dealing with our pollutants, filtering excess nitrogen and allowing a clean environment for other wildlife. In this way Oysters connect us to the environment, specifically Humboldt Bay, on a larger scale.

Sources

Images used by permission are cited throughout this guide.

Text citations are found [here](#).

Created by Redwood Coast Montessori High School Ecology students with cooperation from Friends of the Arcata Marsh and under the direction of Ian Gledhill.

