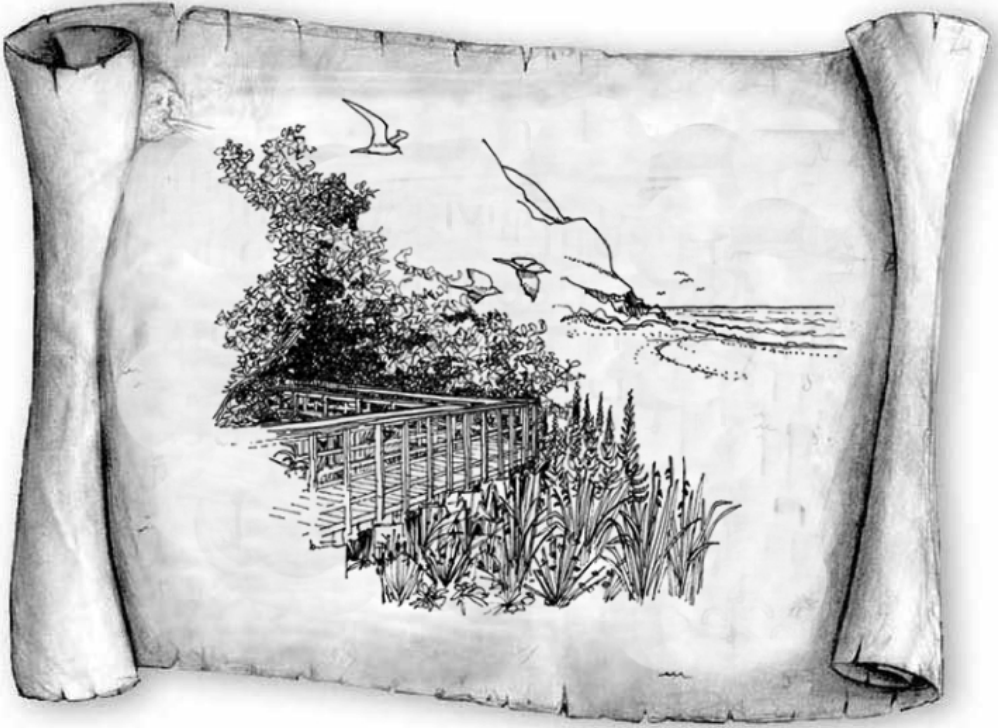


Voices of Muir Beach

A Quest Along Redwood Creek



Name: _____

Date: _____

Today's Weather is:

Towis' awwe! (A traditional Miwok welcome)

Welcome to Muir Beach –
Such a wonderful place to
be!

It's where fresh water from
Redwood Creek meets salt
of the sea.

All kinds of life make their
home in this place, from
giant Grey Whales to macro-invertebrates!

For you, this is a great place to play -- but for them this is the
place they stay.



Now, turn to the north: see if you can find the open hillside and
Dias Ridge line.

Shhh. Listen...

Dias Ridge speaks:

“On this Quest there’s an up and down motion
that connects Mt. Tamalpais with the Pacific Ocean.
Where does my watershed begin?
With fog and rain and groundwater within.
Tributaries join forces into Redwood Creek,
Flowing downstream, it’s the ocean they seek.”

Naturalist's Corner

A watershed describes how water flows from ridge tops down
into valleys. As the watershed flows out to sea it carries rocks,
sticks, seeds and animals to new places. Overtime, this process of
water flow shapes the land and gives form to the watershed.

Now, walk towards the ocean, away from the ridge
And stop at the turn of the faux wood bridge.

Great Blue Heron speaks:

“Once this area was choked up with weeds
But now it’s restored because of good deeds.
Friends of Muir Beach restored this floodplain
See all the sedges that us birds have gained.”



Naturalist's Corner

Volunteers have planted over 20,000 native plants in this newly created floodplain. This will provide an area of slower current in Redwood Creek during floods, preventing baby fish from being washed out to sea. During winter rains, the creek banks overflow and spread into the floodplain. During dry summer months, the creek recedes. This cycle of ebb and flow is an important part of the watershed's health, upon which many plants and animals depend.

You don't have to linger here for a week!
The treasure you seek next is Redwood Creek.

Arroyo Willow (*tiwut* or *tcaiwa*) speaks:

“Willows and alders form a bright jade glade
Providing creek and wildlife with welcome shade.
Both of us trees love to have wet feet:
You'll always find us at the side of a creek.
Coast Miwok bent our branches into baskets and snares
Listen for song birds – of your presence they're aware.”

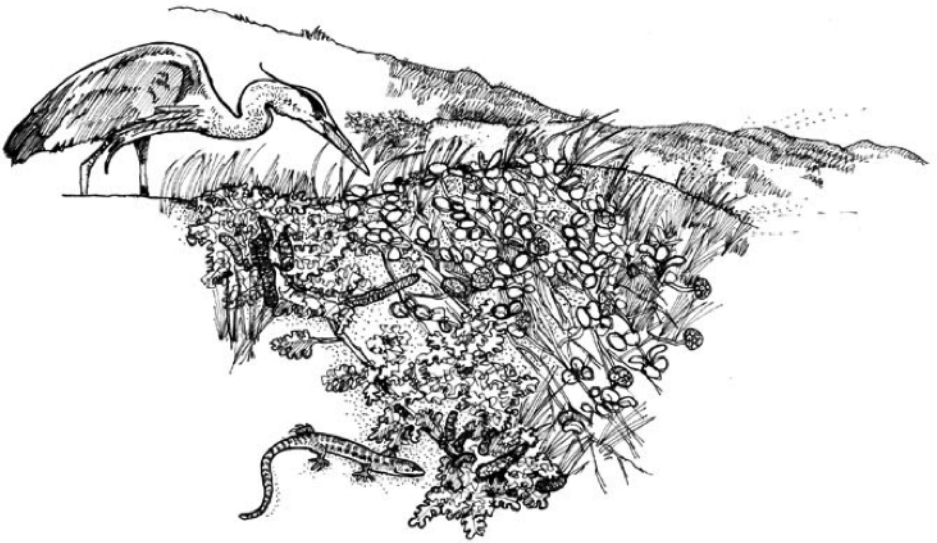


Naturalist's Corner

The Coast Miwok Indians have lived here for thousands of years. Many of these plants were used for food, medicine, clothing and shelter. Imagine coming to Redwood Creek to gather these things, instead of going to the store like we do today. The plants that grow along Redwood Creek are also important places for birds, fish, and other animals. During the dry California summer many critters come to this creek to get water.

Out of the shade, under the sky you'll be soon
Turn right from the bridge to the sign about dunes.

"I washed downstream. I was blown back, too!
Plants work hard to keep me here with you.
Beach Bur and Sand Verbena – they anchor me in.
And keep me from blowing off in strong ocean wind."



Naturalist's Corner

Sand dunes never stop moving - they are shaped by tides and winds. Dune grass and ground-hugging mats of beach burr, yellow sand verbena and dune strawberry make their homes on the dunes. These plants help hold the sand dune together. Many plant species that inhabit dunes have small white hairs covering them to reflect sunlight and conserve water.

Stay close to the willows anchoring the dunes on your right,
And follow the fence posts until the lagoon is in sight.

Water speaks:

“Winter storms and monthly moons
Pull salty tides up into my lagoon.
Where picnic blankets were once spread
I get to stretch out and slow down instead.
As winter rains flood into this space
It gives young fish a hiding place.
Look to my surface: perhaps it is showing
The direction the coastal wind is blowing.



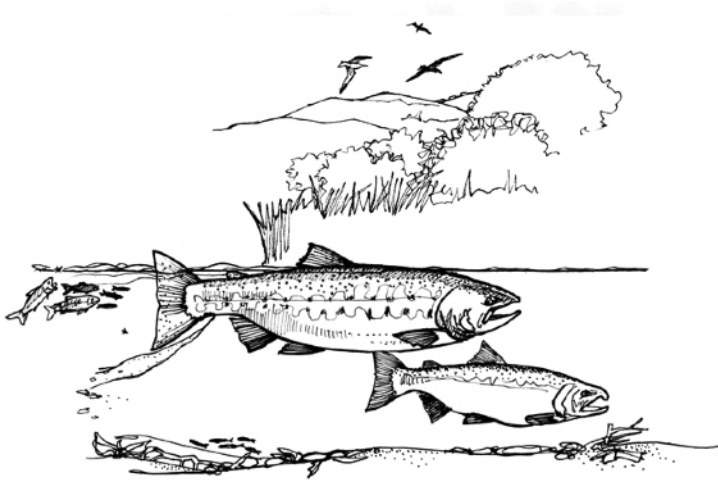
Naturalist's Corner

One of the earth's most fertile habitats is where freshwater streams meet saltwater tides, called estuaries. The estuary is the entrance to the watershed for spawning salmon and an important stop for migrating ducks and shorebirds on their way up the Pacific Flyway. During heavy winter storms the lagoon at Muir Beach opens to the ocean's influence.

Follow the water that is always in motion
Stop where the creek wants to meet the ocean

Salmon speaks:

"In spring, I swim downstream as a tiny smolt.
I won't pass here again until I'm an adult.
Two years in between, I'll spend out at sea
Getting as big as I can be, eating whatever I can see --
And hoping that others don't come and eat me!
When the first winter rains fill up my creek,
And fresh water flows to sea from high mountain peaks
I return once again to the place of my birth
I spawn, and then give back my body back to the earth.



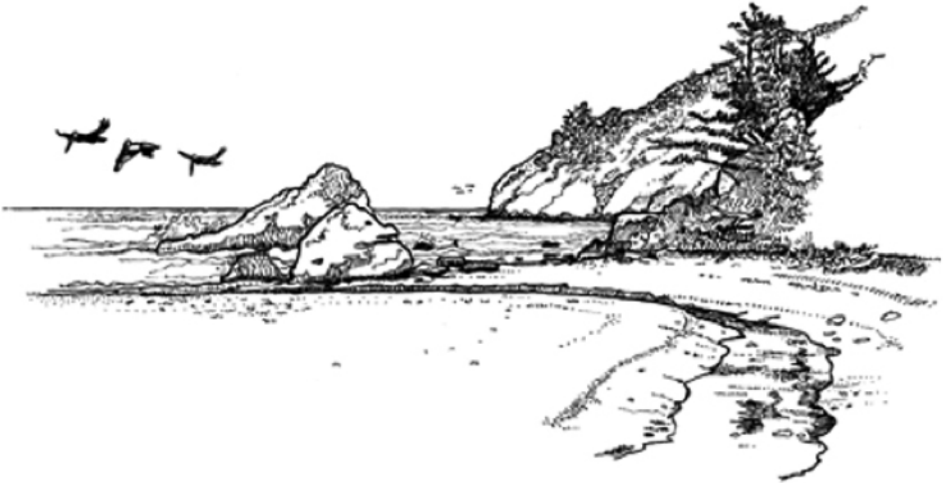
Naturalist's Corner

You may see fish breaking the surface of the lagoon. These are likely federally threatened steelhead trout or endangered coho salmon. Lagoons provide young fish protection during storms and plenty of places to hunt for food as they get ready to go to sea. For adults returning to spawn, the lagoon is a nice deep spot to wait for winter storms to pass and creek levels to rise.

As you spend some time at Muir Beach
I hope you've let this poem teach
You things you didn't know before.
There are so many things here to explore!

Now take some time to relax,
Forget about school and income tax!
Look for beach wrack along the shore,
Or spot a bird flying high ever more.
Follow tracks in the sand and go for a hike
You might find an amazing view that you really like!

When you're ready to leave Muir Beach
Continue on to Page 8 to find the Quest treasure.



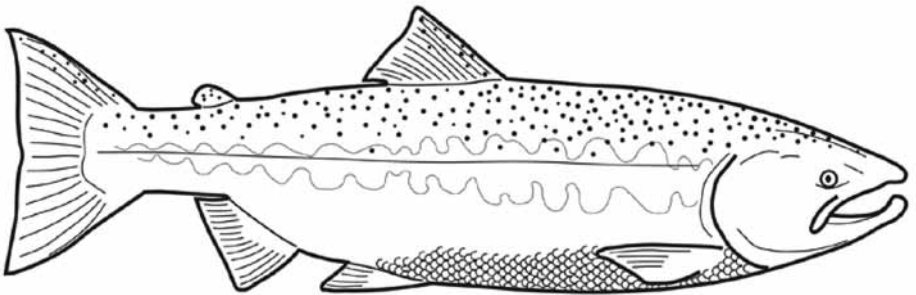
Naturalist's Corner

While exploring the beach, take time to explore the wrack line. This is where seaweeds, shells and other things from the sea are left on the beach after the tide has come. The wrack line is an important habitat for many beach creatures. How many different kinds of life can you find?

Now back to the parking lot where this whole Quest was started
Find the tall, four sided kiosk and check out where the fish darted
Swimming near the base is a special coho salmon --
You have to look down low to see where this fish is jammin'
Use the blank paper on the last page of your Quest book
and with the crayon create a rubbing for all to look.

(NOTE: The rubbing plaque has not yet been installed)

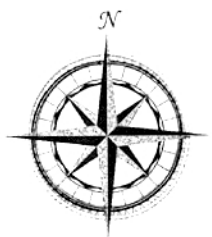
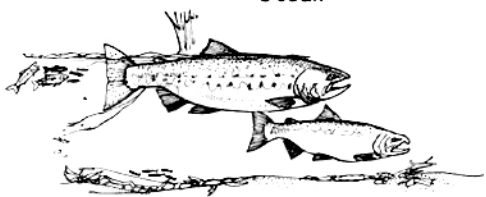
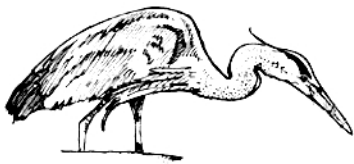
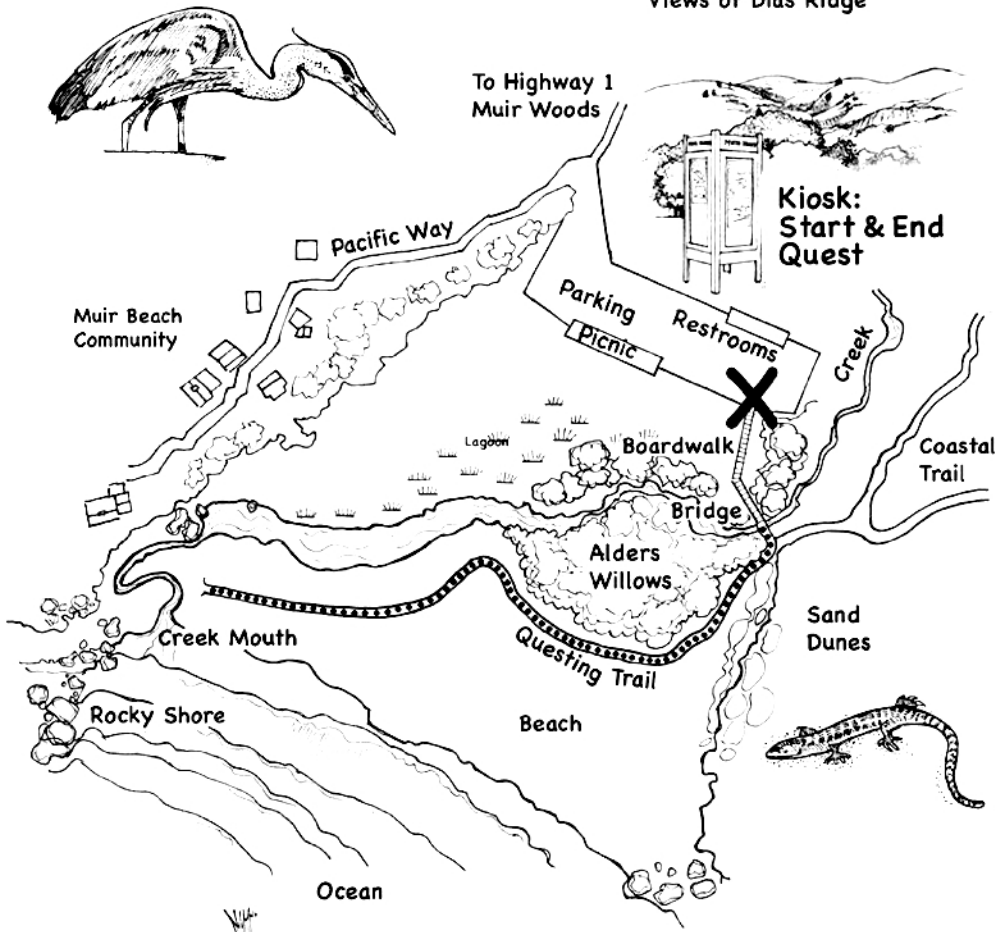
Like the Trout and Salmon you are now leaving Redwood Creek
Be sure to wave 'goodbye' to the Tamalpais mountain peak.
Salmon, willow, Dias ridge, water and Heron all thank you
For exploring this wonderful place and bid you 'adieu'.



Naturalist's Corner

Do you know where your water comes from? Much of the water we drink is taken from streams like Redwood Creek. What can you do each day to save water and keep it clean for the other plants and animals that also need it?

Views of Dias Ridge



RUBBING



This is a draft version of the Muir Beach Quest. Your feedback is needed to improve it before printing! Please answer the questions below and mail to:

Muir Woods National Monument
Muir Woods Road
Mill Valley CA 94941

or email your responses to
Lucy_Scott@nps.gov

1. What was the most fun? the least fun?
2. Did you complete the activity?
3. How much time did it take? (excluding playtime on the beach)
4. Was the map easy to follow? How would you improve it?
5. How else would you improve the Quest activity?