

# Bay Nature Families Afield - URBIA ADVENTURE LEAGUE ACTIVITY PAGE

**WATER WORDS: WETLANDS**-Wetlands are lands where saturation with water is the dominate factor determining the nature of soil development. They also can be identified by unique plants that have adapted to soils without much oxygen. BRACKISH-mixture of fresh and saltwater typically found in estuarine areas; water that is salty but not as salty as seawater. **CHANNELIZATION**-straightening of rivers or streams in an artificial channel. **ESTUARY**-semi-enclosed coastal body of water that has a free connection with the open sea and where fresh water from land (usually mouths of rivers) is mixed with seawater; often subject to tidal action and changes in saltness. Fresh river water is blocked from streaming into the open ocean by surrounding land, peninsulas, barrier islands, or fringing salt marshes. This mixing of fresh and salt water creates a unique environment that brims with life of all kinds. **MARSH**-common term for treeless wetlands with shallow water and lots of floating and submerged wetland plants. Typically found in shallow basins, on lake edges, along slow-moving rivers, and in calm tidal areas. Marshes may be freshwater, un-vegetated wetlands on the edge of the saltwater subject to periodic flooding and minor wave action. Provides habitat for invertebrates, fish, and shorebirds. **TIDAL FLUSHING**-action of salt water entering an estuary twice a day during the high tides. It renews the salinity and nutrients to the estuary and removes artificially introduced toxins in the environment. **MUDFLAT**

## FIELD NOTES

TODAY'S DATE:

SEASON:

TEAM NAME:

## SENSORY TOOLBOX

FEEL THE WEATHER:

WINDY  COOL  WARM  WET

LISTEN FOR NATURE SOUNDS:

'COLLECT' SOUNDS HERE:

VOCALIZE LIKE A BIRD: PICK A FAVORITE BIRD CALL AND CALL YOUR TEAM TOGETHER!

REMEMBER YOUR EXPERIENCE BY COUNTING:

HOW MANY BIRDS CAN YOU SEE? \_\_\_\_\_

HOW MANY BIRDS CAN YOU HEAR? \_\_\_\_\_

SEARCH FOR NATURE BY OBSERVING BEHAVIORS:

MOVING  STAYING IN A GROUP

HIDING  WADING  FLYING  FEEDING

RESTING  MORE: \_\_\_\_\_

## WATER WORDS

FIND SIX WORDS THAT ARE DEFINED ALONG THE BLUE BORDER OF THIS PAGE:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

FIND ANY 6 WORDS ABOUT THE MARSH ON THE SIGNS NEAR THE PIER!

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



**WHO EATS PICKLEWEED?**  
Its crunchy, salty flavor appeals to humans and the endangered salt-marsh harvest mouse, too! These mice, although very rare, have been seen from the pier at Arrowhead Marsh!



LEOPARD SHARK



BAT RAY

**WHAT CAN YOU SEE AT LOW TIDE?**

KNOW WHERE TO LOOK!

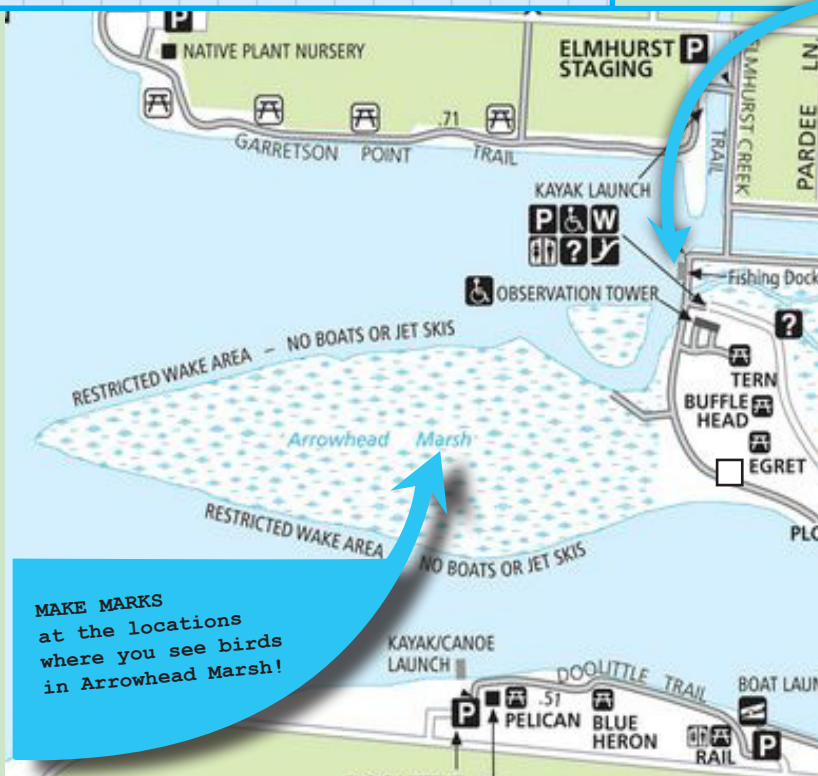
Leopard sharks and bat rays are hidden below the water, but BAT RAYS can be commonly seen from the fishing dock and the bridge beyond the observation tower.



**HOW TO SPOT A CLAPPER RAIL?**

These elusive chicken-like shorebirds are most active in early morning and late evening. They forage in marsh vegetation in and along creeks and mudflat edges. Listen for their call:

[youtube.com/watch?v=4wX35qxtMPA](https://www.youtube.com/watch?v=4wX35qxtMPA)



MAKE MARKS at the locations where you see birds in Arrowhead Marsh!

Tide Tables for San Leandro Bay: [www.saltwatertides.com/dynamic.dir/californiasites.html](http://www.saltwatertides.com/dynamic.dir/californiasites.html)

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