

Seasonal Sightings:

Migratory Birds (Spring & Fall)

Bolinas Lagoon is internationally recognized as a critical stopover for tens of thousands of birds that come through the Pacific Flyway every *spring* (Feb - Apr) and *fall* (Aug - Oct). Look out for migratory birds such as the American Avocet, Western Sandpiper, Pacific Loon, and others. Visit Audubon Canyon Ranch to learn more about shorebird surveys: egret.org/shorebirds



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By-the-Wind Sailors (March - June)

Find these flat, oval-shaped hydroid polyps (cousins of the jellyfish) that live in the open ocean but often wash up on beaches like Stinson in the *spring* and *early summer* months. They are deep blue in color with an upright, triangular sail that catches the wind, blowing them across the water's surface.



Western Monarch Butterflies Migration (October - March)

During their migration period, monarchs will leave inland breeding habitat and look for suitable places to overwinter in coastal areas. The Western Monarch Count is a volunteer-powered community science effort to collect data on the status of the western monarch population along the Pacific coast.

Learn more: westernmonarchcount.org



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By-the-wind Sailor © garagefairy / CC BY-NC; Monarch © icosahedron / CC BY;
Pink Sand Verbena © Richard Hasegawa / CC BY-NC

All Year Round:

Sand dunes are a vital part of beach habitat helping to slow down shoreline erosion and absorb the impact from storm surges. They are also critical habitat for native plants and endangered wildlife such as sand verbena and Snowy Plovers.



The California coast is truly incredible. Whether this is your first visit or your 100th, you are essential to protecting this unique place and landscape.

By practicing Leave No Trace principles, you will help create healthier ecosystems and a more enjoyable outdoor space for all of us to share. Visit cleanercoast.org to learn more about Leave No Trace and how simple actions can make a big difference.

Want to do more? Join a beach watch! This dedicated group of volunteers survey beaches stretching the coast line from Point Año Nuevo to southern Mendocino County year round. Learn more: beachwatch.farallones.org



Rising Tides

"Royal Tides" or "King Tides" are terms used to describe the unusually high tides that occur several times a year due to periodic alignments of the earth, moon, and sun. These tides can help us identify flood risks and visualize what coastal areas and shorelines will look like with higher sea levels.

Help document these changes by submitting your photos of the area to the California King Tides Project. When taking photos, please do so safely, respect the power of the ocean and don't disturb shorebirds that may be much further upland than usual. Learn more: coastal.ca.gov/kingtides

STINSON BEACH & BOLINAS LAGOON COASTAL RESILIENCE PROJECTS



COASTAL RESILIENCE PROJECTS are how we're responding to sea level rise affecting our public coasts. Sea level rise is a symptom of global warming, which is being caused by burning fossil fuels. Rising water levels could reach 2 to 5 feet by the year 2100, with huge impacts to communities and ecosystems if no action is taken.





STINSON BEACH & BOLINAS LAGOON COASTAL RESILIENCE PROJECTS

1 The **Bolinas Lagoon Wye Wetlands Resiliency Project** will improve the function and resiliency of wetlands at the north end of Bolinas Lagoon by removing and elevating roads to allow space for Lewis Gulch Creek to be reconnected with its historic floodplain and for wetlands to migrate upland with sea level rise.

LEAD AGENCY: Marin County Parks

MORE INFO: parks.marincounty.org/projectsplans/land-and-habitat-restoration/wye-wetlands-bolinas-lagoon

2 The **MRN 1/Bolinas Lagoon Sea Level Rise Adaptation Planning Study** will develop technical climate change adaptation strategies and designs, conduct lagoon modeling, sediment conveyance, and high tide studies, to create treatment plans and project alternatives at Bolinas Lagoon along Highway 1. This effort will address vulnerabilities to the area such as current and future weather events, increasing frequency and magnitude of natural disasters, and changing climate conditions including sea level rise.

LEAD AGENCY: Caltrans

MORE INFO: D4_ClimateResilience@dot.ca.gov

3 The **Stinson Adaptation & Resilience Collaboration (ARC)** is supporting stakeholders in developing a sea level rise adaptation roadmap for Stinson Beach. In partnership with technical consultants, local agencies, and the community, Stinson ARC will assess which adaptation options are available to infrastructure and natural areas threatened by sea level rise. This roadmap will then help Stinson stakeholders make informed adaptation and resilience decisions.

LEAD AGENCY: Marin County Community Development Agency

MORE INFO: marincounty.org/depts/cd/divisions/planning/csmart-sea-level-rise/stinson-arc

4 The **South End Living Shoreline Project** aims to establish new marsh and mudflat habitat and improve function of Bolinas Lagoon's transitional marsh habitat along its southern shoreline. To develop the best adaptation designs, technical studies will include modeling tides, sediment transport, and erosion hotspots. Strategies will focus on native plants and other natural elements to create wildlife refuge and stabilize the shoreline for greater resilience to sea level rise and increased storm surges.

LEAD AGENCY: Greater Farallones Association

MORE INFO: farallones.org/bolinas

5 The **Stinson Beach Flood Study** evaluates effects of riverine, coastal, and groundwater flooding and future sea level rise at the Golden Gate National Recreation Area's (GGNRA) Stinson Beach property. This study is used to inform GGNRA's adaptation planning at Stinson Beach.

LEAD AGENCY: National Park Service

MORE INFO: marincounty.org/-/media/files/departments/cd/slr/stinsonbeachintegratedfloodstudy_final.pdf

6 The **National Park Service (NPS) Parking Lot Rehabilitation Project** will renovate deteriorated parking lots which have been damaged by flooding and storms. NPS is improving the parking lots in a way that respects natural features of the site such as Easkoot Creek and dunes.

LEAD AGENCY: National Park Service

MORE INFO: Stinson Beach Parking Lots Rehabilitation, available at nps.gov/goga

These adaptation and resiliency projects are in different stages of implementation. Agency partners meet quarterly to ensure collaboration and coordination between projects as they progress.