

Discover Humboldt Coastal Habitats

The Humboldt area beaches, dunes, and wetlands offer exceptional opportunities for nature study, beachcombing, picnicking, hiking, and more.

These rare and fragile habitats consist of a mixture of public and private land ownership.

This map describes some of the best places to experience North Coast beaches and facilities available at each site.

1 Moonstone Beach County Park

The rocky cliffs surrounding Moonstone Beach County Park create a dramatic landscape at this popular surfing, rock-climbing, and picnicking area. The park provides access to Little River, where it meanders through the sandy beach and flows into the ocean.

2 Little River State Beach

This extensive, windswept beach features dunes, wetlands, and a broad expanse of sand. The park is bordered by Little River to the north and Clam Beach County Park to the south. The area can be accessed off the Crannell Rd. overpass and from the northern Clam Beach parking lot. Dogs and off-road vehicles are not allowed in the park.

3 Clam Beach County Park

With miles of sand, Clam Beach is an ideal place for an afternoon stroll or a weekend of camping and beachcombing. Street-legal, four-wheel-drive vehicles (no ATVs, motorcycles, or dune buggies) may access the beach but must stay on the waveslope (hardened wet sand adjacent to the ocean surf) and not exceed 15 mph. Recreational dune riding and vehicle play are not allowed.

Clam Beach is an important breeding area for the threatened western snowy plover, and park ordinances require visitors to avoid disturbing plovers and their nests. Dogs must be on a leash during western snowy plover breeding season (March through September), except on the waveslope. Please limit your activities to the waveslope during the breeding season.

4 Mad River County Park

Facilities include parking, restrooms, and boat launch (to Mad River). Vehicle access to the beach is allowed for commercial fishermen, senior citizens, and handicapped individuals by permit only. For permit information, call (707) 445-7541. Dogs must be on a leash during western snowy plover breeding season (March through September), except on the waveslope (wet sand).

5 Lanphere Dunes, Humboldt Bay National Wildlife Refuge

The Lanphere Dunes Unit includes the earliest protected dune areas on Humboldt Bay. The site has undergone extensive restoration, and due to the sensitivity of the area, public access to the Lanphere Dunes is restricted to day use by individuals with use permits and guided walks. Call Friends of the Dunes (707) 444-1397 for walk and permit information. Lanphere Dunes has no restroom facilities. Dogs and horses are not allowed.

6 Ma-le'i Dunes North, Humboldt Bay National Wildlife Refuge

Carrying the traditional place name conferred by the Wiyot people, the Ma-le'i Dunes Unit (Ma-le'i North) encompasses 260 acres of forest, dune, and salt marsh habitat. From Friday-Monday, the public can drive to the parking area to access dune trails. Tuesday-Thursday the access road is closed, but the public can walk or bike to the parking lot to access trails. Open one hour before sunrise until one hour after sunset. Dogs and horses are not allowed.

7 Ma-le'i Dunes South, Bureau of Land Management

Following nearly two decades of invasive weed eradication and native plant restoration, this 152-acre area offers outstanding examples of dune, forest, and freshwater habitat. Hiking, dog walking, and horseback riding on designated trails are popular activities, with picnic tables, vault toilet, and equestrian staging facilities provided. Open one hour before sunrise until one hour after sunset.

8 Mad River Slough Wildlife Area

Managed by the California Department of Fish and Wildlife, this wildlife area was formerly part of Arcata Bay's extensive intertidal salt marsh and mudflats. The area provides opportunities for wildlife viewing and hunting.

9 Arcata Marsh and Wildlife Sanctuary

The Arcata Marsh and Wildlife Sanctuary is home to the City of Arcata's innovative wastewater treatment facility. The sanctuary includes 5 miles of walking and biking paths and an Interpretive Center. The area provides homes and migratory resting places for over 300 species of birds. Free guided walks are offered regularly by the Friends of the Arcata Marsh and the Redwood Region Audubon Society. Call (707) 826-2359 for walk information.

10 Fay Slough Wildlife Area

Managed by the California Department of Fish and Wildlife, this 484-acre previously grazed land has been restored to coastal and seasonal wetlands. Bird watching and wildlife viewing are allowed.

11 Humboldt Coastal Nature Center

Humboldt Coastal Nature Center is a 113-acre reserve with marked trails and an interpretive center, with exhibits highlighting coastal natural history. The Friends of the Dunes, a local nonprofit organization, operates the center and provides guided walks, school education programs, and community restoration work days. Access is via Stamps Lane. A current schedule of activities and events is available at: www.friendsofthedunes.org or by calling (707) 444-1397.

12 Manila Dunes Recreation Area

Over 150 acres of beaches, dunes, wetlands, and forest are accessed through the Manila Community Center at 1611 Peninsula Drive, Manila. Facilities include restrooms and ample parking. Dogs are allowed on a leash or under voice control. Horse use is limited to designated trails.

13 Samoa Beach, U.S.S. Milwaukee Marker, and The "T"

These three access sites between Manila Dunes and Samoa Dunes Recreation Area provide quick entry to the beach. At low tide the remains of the U.S.S. Milwaukee can be seen. The cruiser was beached in January 1917 trying to free the grounded submarine, the Garfish.

14 Samoa Dunes Recreation Area

Off-highway vehicle use, surfing, fishing, and picnicking are a few of the more common recreational activities visitors enjoy at this popular 300-acre park. Open one hour before sunrise until one hour after sunset, the area is closed to overnight camping, nighttime vehicle use, firearms use, and vegetation collection. Due to the vast array of activities, it is important to respect the rights of other visitors while exploring Samoa Dunes.

15 Humboldt Bay National Wildlife Refuge

The Salmon Creek and Hookton Slough Units of the refuge have spectacular waterbird viewing, especially from October to May. The Salmon Creek Unit includes the refuge office, the Richard Guadagno Visitor Center, and a trail system, and is open daily 8am-5pm, except federal holidays. The Hookton Slough Unit is open 365 days/yr for day-use hiking and has a canoe/kayak launch. Dogs and horses are not allowed at either unit.

16 Elk River Access Area: Hikshari Trail-Elk River Wildlife Sanctuary

This area includes the 1.5-mile Hikshari Trail that parallels the banks of the Elk River. Accessed in the north at the foot of Truesdale and continuing to the Pound Road/Herrick Park and Ride, the trail contains many improvements, including restrooms, boat launch, and parking, as well as providing access to the Elk River Wildlife Sanctuary which has over 100 acres of restored riparian woodland, freshwater marsh, and dunes.

17 Mike Thompson Wildlife Area, South Spit Humboldt Bay

Named after the congressman who was instrumental in making sure these lands are open for the public to enjoy, this area offers a variety of recreational opportunities. Home to the threatened western snowy plover, people, vehicles, and dogs are required to steer clear of posted areas during the plover nesting season (March through September). Dogs must be leashed on the west side of Jetty Road during plover nesting season. Waterfowl hunting is allowed on the east side of the road and early morning access during waterfowl hunting season is provided. Beach driving is allowed on the waveslope only. Open one hour before sunrise until one hour after sunset.

18 Eel River Wildlife Area and Crab County Park

The Eel is California's third largest river and carries 10% of California's yearly runoff. It is important to our coastal dunes because it carries a tremendous amount of the sediment that forms the building materials of dunes. The Eel River delta can be explored from Crab County Park and the Eel River Wildlife Area, accessed four miles west of Loleta, at the end of Cannibal Island Road. The Eel River Wildlife Area, owned and managed by California Department of Fish and Wildlife, is home to the threatened western snowy plover. In the Wildlife Area vehicles are restricted to the waveslope (wet sand) and the back dune road. Dogs must be on a leash from March through September.

19 Eel River Estuary Preserve (EREP) and Sounding Seas Beach Reserve (SSBR)

Identified in a 1974 California Department of Fish and Game study as the most ecologically valuable area of the estuary, the EREP and SSBR include tidal wetlands, freshwater marsh, sand dunes, grasslands, miles of remote beach and a spectacular half-moon bay on the Eel River. The preserve is important habitat for migratory waterfowl, shorebirds, bald eagles, river otters, harbor seals and much more. Owned and managed by The Wildlands Conservancy, a 501(c)(3) non-profit public benefit corporation, please call for more information: (707) 672-4725.

Marine Protected Areas (MPAs)

MPAs protect important marine habitat so the ocean's biodiversity will be safeguarded for the economic and recreation activities of future generations.

The North Coast MPAs were implemented in 2012. There are two MPAs in the Humboldt Bay area: Samoa State Marine Conservation Area and South Humboldt Bay State Marine Recreational Area.

For more information on MPAs visit www.wildlife.ca.gov/MPAs

User Etiquette

- Obey posted rules and regulations and trail designations.
- Stay on the trails to preserve plants and wildlife.
- Dogs (when allowed) must be leashed or under voice control. *Voice Control is defined as: the dog is within view and within voice range of the owner, the dog comes at first calling, and the dog is not allowed to approach people in a threatening manner or in any way harass people, wildlife, other dogs, or horses.*
- Leave no trace - pack out your trash and pet waste.
- Keep off-highway vehicle activities in designated areas only. If violations are observed, call the Humboldt County Sheriff at (707) 445-7251.

Safety Watch for water safety signs alerting you to site-specific hazards.

- Ground shaking or the ocean receding or suddenly changing is your warning to leave the beach and go to high ground. A tsunami may be coming.
- Rocks and jetties can be overtopped by waves at any time and rising tides can cut off access. Stay off rocks and jetties and plan for rising tides.
- Never turn your back on the ocean and stay away from the surf. Sneaker waves can strike at any time, even when most waves are small.
- Do not attempt to rescue your dog if it gets caught in the surf. Dogs are much more likely to make it out on their own than you are.

Off-Highway Vehicle Regulations

In 1994, Humboldt County adopted Code 917, which restricts off-highway vehicles (including 4-wheel-drive trucks) from most of the Samoa Peninsula beaches and dunes, except the area between the North Jetty and the town of Fairhaven. The only exceptions to this are emergency vehicles, licensed commercial fishers, senior citizens, and those with special permission. The speed limit on the open area is 15 MPH. For permit info, call (707) 445-7541. To report violations, call the Sheriff's Department at (707) 445-7505. Off-highway vehicles are allowed with some restrictions at the Samoa Recreation Area between the North Jetty and the town of Fairhaven, at Clam Beach County Park, at Centerville Beach, at Table Bluff County Park, and at the Mike Thompson Wildlife Area. Vehicle use at Clam Beach, Table Bluff, the South Spit, and Centerville Beach is restricted to the waveslope (the area of beach last washed by the high tide) and is subject to seasonal closures during western snowy plover breeding season from March through September. The speed limit is 15 MPH. Always observe posted regulations at public access points.

FOR MORE CONTACT INFORMATION - SEE BACK OF MAP

Humboldt Bay Area Beaches, Dunes, and Wetlands

- Parking
- Restrooms
- Surfing
- Fishing
- Hunting ([visit www.dfg.ca.gov/](http://www.dfg.ca.gov/) for specific regulations)
- Picnic Tables
- Pedestrian Access
- Wheelchair Access
- Boat Launch
- Equestrian Staging
- Conservation Area-Limited Access
- Camping Fee
- Recreational OHV
- Limited OHV (See bottom left column)
- Interpretive Trail
- Guided Walks (Regularly Scheduled)
- Wildlife Viewing Area
- Emergency Phone
- Paddle

- Dogs On Leash*
- Dogs Under Voice Control*
- Dogs Not Allowed

* Site-specific regulations apply. Call (707) 444-1397 to request a dog brochure.

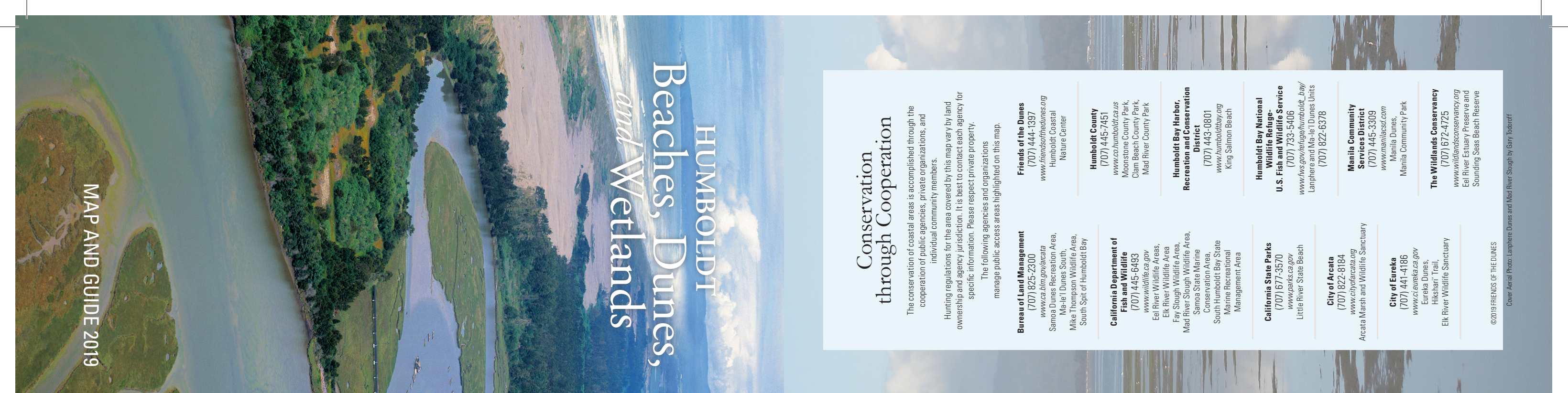
- Public Access Points
- Beach, Dunes & Wetlands Public Land Areas
- Restricted Access
- Marine Protected Areas

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MAP AND GUIDE 2019

HUMBOLDT Beaches, Dunes, and Wetlands

Conservation through Cooperation

The conservation of coastal areas is accomplished through the cooperation of public agencies, private organizations, and individual community members.

Hunting regulations for the area covered by this map vary by land ownership and agency jurisdiction. It is best to contact each agency for specific information. Please respect private property.

The following agencies and organizations manage public access areas highlighted on this map.

Bureau of Ocean Management
(707) 185-2800
www2.bom.gov
Samoa Dunes Recreation Area,
Ma-le'i Dunes South,
Ma-le'i Peninsula Wildlife Area,
South Spit of Humboldt Bay

**California Department of
Recreation**
(707) 445-5493
www.wildlife.ca.gov
Eel River Wildlife Area,
Eel River Slough Wildlife Area,
Mad River Slough Wildlife Area,
Samoa State Marine
Conservation Area,
South Humboldt Bay State
Conservation Area
Management Area

**Humboldt County
Wildlife Refuge Service**
(707) 733-5406
www.fws.gov/efg/humboldt_bay/
Lanphere and Ma-le'i Dunes Units
(707) 822-6378

**Humboldt Bay Harbor,
Recreation and Conservation
District**
(707) 443-0801
www.humboldtcounty.org
King Salmon Beach

**Manila Community
Services District**
(707) 441-4186
www.manilacommunity.com
Manila Dunes,
Manila Community Park

The Willards Conservancy
(707) 572-4725
www.willardsconservancy.org
Eel River Estuary Preserve and
Scouting State Beach Reserve

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Cover Aerial Photo: Lanphere Dunes and Mad River Slough by Gary Hansen



Brown Pelican
Ron LeValley



Invasive *Spartina* removal at HBNWR

Conserving Coastal Habitats

Efforts are underway to restore local wetland and dune habitats.

Restoring Salt Marshes

One major threat to Humboldt Bay's salt marshes is the spread of *Spartina densiflora* (*Spartina*), an invasive plant introduced in the late 1800s by way of ship ballast. Nearly 90% of current salt marsh habitat has been invaded by *Spartina*, which displaces native species, alters wildlife habitat and threatens to colonize other West Coast estuaries. The State Coastal Conservancy has partnered with the Humboldt Bay National Wildlife Refuge and Humboldt Bay Harbor, Recreation and Conservation District to refine restoration techniques, research impacts of invasion as well as eradication, and to develop an approach for regional eradication. Visit www.fws.gov/refuge/humboldt_bay for more information.

Restoring Dunes

The natural diversity of the dune ecosystem depends on a semi-stable dune system with openings for native species to thrive. Non-native, invasive species lower natural diversity by out-competing native plants, inhibiting natural dune processes, and changing soil chemistry. The main invaders are yellow bush lupine, European beachgrass, annual grasses, and iceplant. Removal of these plants allows native species to re-establish, which returns plant diversity to the dunes and provides habitat for animals dependent on the native dune plant community. Removal of invasives helps to restore biodiversity and return natural processes to the dune ecosystems. To find out how you can get involved with volunteer efforts to help restore Humboldt Bay's dunes and wetlands, contact Friends of the Dunes at (707) 444-1397 or www.friendsofthedunes.org.

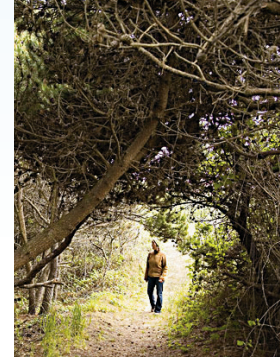
Marine Protected Areas

The North Coast's Marine Protected Areas (MPAs) are part of 124 protected areas covering 848 square miles of coastal habitat. California's MPA Network includes different levels of protection; some MPAs prohibit the disturbance of any marine resource while others provide protections to targeted species. California's MPAs limit fishing and other extractive activities, which may increase the size, diversity, and abundance of species that spend a portion of their lives within them. There are two new MPAs in the Humboldt Bay area. The Samoa State Marine Conservation Area helps protect sandy beach habitats important to surf perch and smelt. The South Humboldt Bay State Marine Recreational Management Area protects sensitive eelgrass habitat as well as coastal marsh, mudflats, and channels that provide habitat for rays and leopard sharks.

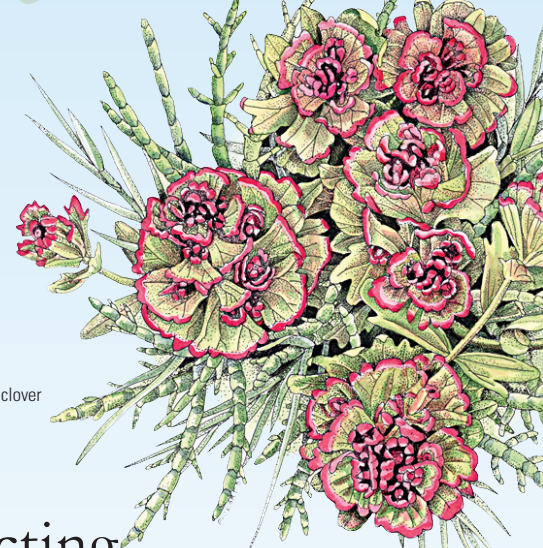
You can discover a sense of place by learning more and becoming involved in conserving these unique coastal habitats.

The foredune plant community at Lanphere Dunes

Manila Dunes



Beach pine stand



Humboldt Bay owl's clover

Protecting Endangered Species

Humboldt County's coastal habitats are home to several rare and endangered species.

The Humboldt Bay wallflower and the beach layia are federally listed endangered species found in the dunes. The western snowy plover, a small shorebird, is listed as a threatened species and can be found nesting along our beaches. The estuarine habitats of Humboldt Bay harbor rare plants, such as the Humboldt Bay owl's clover and Point Reyes bird's beak.

The coastal habitats for these species are subjected to development pressures, recreational uses including off-highway vehicles, and encroachment by invasive plant species. The Endangered Species Act and other laws provide mechanisms to protect these species and the ecosystems upon which they depend. By conserving their habitats, we protect endangered species.

Western Snowy Plover

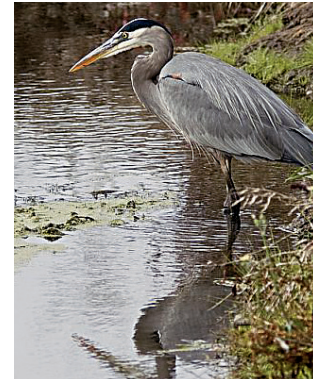
The threatened western snowy plover (*Charadrius nivosus nivosus*) is a small, sparrow-sized shorebird that nests on beaches, estuaries, and river beds along the Pacific Coast. The eggs and birds blend in amazingly well with the environment and can be accidentally disturbed by encounters with people, dogs, horses, vehicles, and even Frisbees or kites. Snowy plovers prefer nesting sites that are open, with sparse vegetation, in order to see approaching predators. The biggest threats to local snowy plover populations include predation on eggs and chicks by ravens, as well as habitat loss and degradation. The invasion of European beach grass has drastically reduced appropriate nesting sites by creating a thick, vegetative cover that reduces visibility for the plovers and provides shelter for predators. Increased recreational use has also affected snowy plover populations. Encounters with people, dogs, and horses, vehicles, and even Frisbees or kites can cause a snowy plover to waste energy fleeing and leave its nest unattended. Restoring native dune habitat and increasing public awareness are essential elements of the plover's recovery. During plover breeding season, March 1 to September 30, limit beach activities to the wet sand of the waveslope, and keep dogs on a leash in order to avoid disturbing nesting plovers.



Western snowy plover
Ron LeValley



Ocean sunset from the Humboldt Coastal Nature Center



Great blue heron in the wetlands
Wayne Long

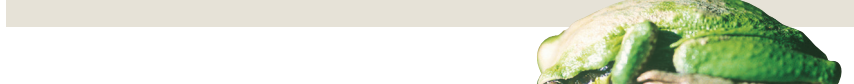


Overlooking Mad River Slough from Ma-le'i Dunes

Guidelines for enjoying beach, dune, and wetland areas

The coastal access areas are managed by many different agencies and organizations. Be sure to observe posted regulations and follow the guidelines listed below to help protect the dunes and have a safe, enjoyable experience.

- Avoid trampling on vegetation, nests, or burrows by staying on designated trails.
- Take preventive measures to avoid ticks, especially in dry, grassy areas during summer months. Mosquitoes can be present in wet and forested areas, especially from May through August.
- Keep dogs and horses (where allowed) on designated trails and under immediate control at all times to protect wildlife.
- Respect beach closure signs during the western snowy plover nesting season from March through September.



Pacific tree frog

Cultural History



Wiyot basket weaver with South Spit of Humboldt Bay in distance
Jodi Rogiers

Wiyot people have lived around Wigi, or Humboldt Bay, for millennia. Villages were sited on shore and island; sacred sites hosted ceremonies and are the stuff of ancient legend. The old ways live on in contemporary Wiyot people and culture.

For thousands of years, native people enjoyed the abundant and varied resources surrounding the bay. Wiyot people used the dunes of the North and South Spits of Humboldt Bay to gather and hunt for what they needed in their daily lives, such as berries, native plant bulbs, and surf fish. Women would gather food and prepare weaving materials, while the men would fish and make tools.

By the mid 1800s, the quest for gold and timber brought settlers and fortune seekers to the area. Tragically, greed for land and resources led to brutality and oppression against

the Wiyot people. Violence, slavery, destruction of natural resources, and disease nearly annihilated native people and their culture. The newcomers displaced the Wiyot and changed the landscape around Humboldt Bay. Marshy areas were drained and diked for cattle pasture, and railroads were built to transport logs to waiting ships. Towns grew and people used the bay and coast mainly as a transportation hub for industry.

Today, Wiyot people still fish and gather in some areas around the bay, but land uses have changed and many of the plants once collected are no longer abundant. The Wiyot are actively involved in protecting areas for gathering as well as establishing economic, health, and educational projects. The tribe is also revitalizing its language, ceremonies, and arts. For more information on Wiyot programs, visit the website of the Table Bluff Reservation at www.wiyot.com.

Humboldt Bay Wallflower

The Humboldt Bay wallflower is unique to the coastal dune system. This endangered plant is found on the semi-stable dunes. It begins as a low rosette that blooms only once in its life before dying and may persist for up to eight years before flowering. A member of the mustard family, the Humboldt Bay wallflower produces dense clusters of bright yellow flowers in the winter and early spring (February to May).



Humboldt Bay wallflower

Natural History

Dune Formation

The key ingredients needed to build a dune system include a source of sand, a shoreline perpendicular to the prevailing winds, and a low landscape over which dunes can migrate. Plant species adapted to survive the drying winds and shifting sands help shape and build the dunes. Here in the Humboldt Bay area, the Eel and Mad rivers supply most of the sand. Winter storms flood these rivers and transport sand to the ocean. Sand is carried by currents along the coast and pushed up on to the beach by gentle summer waves. Once dry, the sand is moved by the prevailing summer winds from the northwest. This dynamic process has created a variety of dune habitats within a narrow stretch of coastline.



Dune ripples at Lanphere Dunes

Dune Habitats

The waveslope is the area of the beach washed by waves during the last tidal cycle. It is a dynamic zone, shifting with the tidal range and seasonally as the beach narrows in winter and rebuilds in summer. Beachcombing here, you can find everything from eelgrass, pacific razor clam shells, and sand dollars, to the carcass of a gray whale. This is also the feeding area for a number of shorebirds. They feed on small invertebrates in the sand and in the seaweeds washed on shore. On the upper beach, you may find plants such as introduced sea rocket, native dune grass, and yellow sand verbena starting to colonize the bare sand.

The first dune, oriented parallel to the beach, is called the **foredune**; behind it, aligned parallel to prevailing winds, and at an angle to the beach, are the **dune ridges**. On the foredune and dune ridges relatively undisturbed by invasive species, you can find a unique community of plants known as dune mat. Here, a wide variety of wildflowers adapted to the drying conditions of the dunes partially stabilize the shifting sand. From May through August, the dunes are in full color with blooms of purple beach pea, bright yellow sand

verbena, pink to deep rust beach buckwheat, lavender seaside daisy, and the deep gold of dune goldenrod. The dune mat is home to two federally listed endangered plant species: Humboldt Bay wallflower and beach layia. Take care to stay on the main trails through these areas.

Dune swales (sometimes called hollows) form when the summer wind has removed sand down to the water table, allowing water-tolerant plants such as rushes, sedges, and willows to move in. During winter storms, the water table rises and forms seasonal ponds in these areas. Tadpoles of the Pacific tree frog and northern red-legged frog can be found here. Eventually, willow may develop in these areas, exhibiting salt pruning on their windward edges. Few plants can survive the open sand of moving dunes. Look for mammal tracks of



Humboldt Bay mudflats

nocturnal and crepuscular animals like gray fox, skunk, and raccoon crossing from the forest to hunt in the dune mat and swales. In some places, you can see that these moving dunes are slowly covering the **dune forest**. Large beach pine, Sitka spruce, and other conifers create an area that is surprisingly different and diverse. Developed soils allow for thick plant growth, with evergreen huckleberry, silk tassel, red-flowering currant, and salal. The forest is also home to many species of lichens, including puffy mats of reindeer lichen, characteristic of northern boreal forests and surviving here in the cool, coastal microclimate.

Wetland Habitats

Salt marshes are among the most biologically productive habitats on Earth because of the way marsh plants

live, die, and decompose. They generate and store tremendous amounts of food that ride the tides into the estuary. Only about 10% of this plant material is consumed by animals; the remaining 90% dies and is broken down by fungi and bacteria. This creates nutrient-rich waters that form the basis of the salt marsh food chain. Invertebrates consume the fine detritus and associated bacteria, and are consumed by higher animals such as shorebirds and fish.

and, along with freshwater wetlands, is used by many species of wildlife. Brackish marshes support different associations of plants, including hardstem bulrush, sea coast bulrush, and the rare sea watch angelica. **Riparian forest** occurs along stream edges in freshwater areas. The canopy layer is dominated by red alder, willows, and Sitka spruce, with an understory of salmonberry, twinberry, California blackberry, and wax myrtle. Lady fern, wood fern, and sword fern create an attractive ground layer in drier areas, with stands of small-fruited bulrush joined by skunk cabbage in wetter areas. The rich structural diversity of these areas, combined with the many fruit-bearing shrubs, attracts a rich bird fauna, especially migrating and nesting songbirds.

Living in the Salt Marsh

Plants in the salt marsh are uniquely adapted to their salty surroundings.

The plant communities of Humboldt Bay are strongly influenced by the tides. Low marshes frequently inundated with saltwater are dominated by the colorful and succulent pickleweed.

Higher-elevation marshes support a more diverse assemblage of over 20 species of native plants, including the rare and beautiful Humboldt Bay owl's clover and Point Reyes bird's beak. Plants in the salt marsh are uniquely adapted to be able to survive the high levels of salt and low levels of oxygen characteristic of this muddy habitat. Pickleweed, for example, sheds excess salt by concentrating it in segmented leaves that can be dropped.



Pickleweed



Point Reyes bird's beak



LARRY EGERT