



# POINT REYES AT



Families have enjoyed the beauty and bounty of the beaches at Point Reyes for millennia. Coast Miwok people fished and gathered clams at low tide. Pictured here is a National Park Ranger contacting a family on McClures Beach in the 1960s, soon after the park was authorized. Inset: Biologist Mike Reichmuth working with students on the Giacomini Wetlands restoration project.

## A Bright Star in the Conservation Galaxy

National Parks have become so much a part of American culture and heritage that it's hard to imagine our country without them. These places are a way of preserving, unimpaired, some of the nation's natural wonders and inspirational human stories for "the enjoyment of future generations."

As early as 1929, Californians were increasingly concerned about the fate of their coastline. Development had swallowed most of the eastern seaboard, and was accelerating along the Pacific and Gulf Coasts. Congressional reports recommended the creation of a system of national seashores to protect these vanishing landscapes, and to provide public access to beaches.

In 1935, Conrad Wirth, then Assistant Director of the National Park Service, recommended that 53,000 acres of Point Reyes be purchased "because of the peninsula's exceptional qualities and ... accessibility to the concentrated population of Central California." The purchase price of \$2.4 million, or about \$45 per acre, seems a great bargain in retrospect, but, with the country still in the grip of the Great Depression, Congress thought otherwise. A new wave of land speculators aroused private conservation groups, who began to purchase Point Reyes themselves. The first 52 acres to be protected, in 1938, were the wetlands adjacent to Drakes Beach at a cost of \$3,000. This property was deeded to Marin County. A dream was born, but it would take the extraordinary work of many individuals working together to fully realize that vision of a national seashore at Point Reyes.

*continued>*

### Welcome!

For nearly a century and a half, National Parks have been sanctuaries for people seeking peace from the turmoil of daily life. This year, Point Reyes National Seashore is commemorating its 50th year as a proud member of this community. John F. Kennedy signed the legislation setting aside the only west coast seashore park on September 13, 1962. Sadly, he didn't live to visit the park, but on October 20, 1966, Lady Bird Johnson, a champion of national parks and outdoor spaces, came to Point Reyes for its dedication. In her speech, the First Lady called Point Reyes, "a bright star in the galaxy of conservation achievements," and spoke of the urgent need urban Americans have for open spaces near their communities.

Point Reyes offers many opportunities to explore that natural world. From a peaceful walk through a fog-shrouded forest to a sun-drenched rocky perch above the immensity of the Pacific Ocean, here you can find many alluring retreats. In doing so, you may witness the drama of the changing seasons, as foggy summers give way to clear autumn days, and sun-browned autumn hillsides give way to winter's replenishing rains.

In spring, the magic is found in tiny yellow sun-cups blooming in sandy soils, and razor-taloned peregrine falcons stooping to combat nest-marauding ravens. The elk bugling on Tomales Point is characteristic of fall on the peninsula, while the return of the northern elephant seal and the migration of the Pacific gray whale herald winter and the year's end.

Enjoy your visit and help us to preserve this "bright star" so future generations may also find wonder and solace here. Through active stewardship, this place will remain a refuge for all.

Park Superintendent, Cicely Muldoon

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Visit us on the web at [www.nps.gov/pore](http://www.nps.gov/pore)

### Fire Permit

You may obtain a free permit for a beach fire at Point Reyes National Seashore from any park visitor center. You must follow regulations as described on the permit. On high fire days, all permits are null and void. Call 415-464-5100 for current fire conditions.



### Emergencies

Report emergencies to visitor center staff or call 911. Cellular service is not available in most park locations. Pay phones are located at all three visitor centers, Limantour Beach, and Pierce Point Ranch.

### Lost and Found

Items may be turned in or reported missing at any park visitor center.

### Become a Junior Ranger!

Ask at the Bear Valley Visitor Center or the Lighthouse Visitor Center for your Junior Ranger activity packet.



For more fun, visit these websites:  
[www.nps.gov/pore/forkids/index.htm](http://www.nps.gov/pore/forkids/index.htm)  
[www.nps.gov/webangers](http://www.nps.gov/webangers)

## Citizens Take Action

In the early 1940s, though recreation and beauty were of little concern to a country at war, local conservationists rallied once again. Mrs. Margaret McClure donated 2.9 acres of her Pierce Point Ranch to Marin County, providing access to the rugged, windswept shore now known as McClures Beach. Caroline Livermore, in concert with the Marin Conservation League, raised \$15,000 to help Marin County buy 185 acres of Tomales Bay shoreline. Out of this nucleus grew Tomales Bay State Park, a refuge for those Ice Age survivors, the Bishop pines.

Following World War II, the country experienced an economic boom period that led to great industrial and urban growth. The federal government invested heavily in highway construction and oil prices were low. More Americans had leisure time, owned cars, and spent time traveling to the coast than ever before. Coastal communities were erecting hotels and motels, restaurants and amusement parks to accommodate and entertain these tourists. This development boom extended to the Point Reyes Peninsula, already a favored vacation spot where well-to-do San Franciscans had built summer homes.

Loggers began cutting down trees on Inverness Ridge and surveyors were marking off lots above Limantour Spit. A sense of urgency to save the land gained momentum with help from a powerful ally—Clem Miller, the new Congressional representative for Marin County. With the support of U.S. Senator from California Clair Engle, Congressman Miller introduced legislation for a 35,000 acre park. Conservationists, organized as the Seashore Foundation, promoted the park dream in the face of opposition from developers and others fearful of losing their traditional way of life.

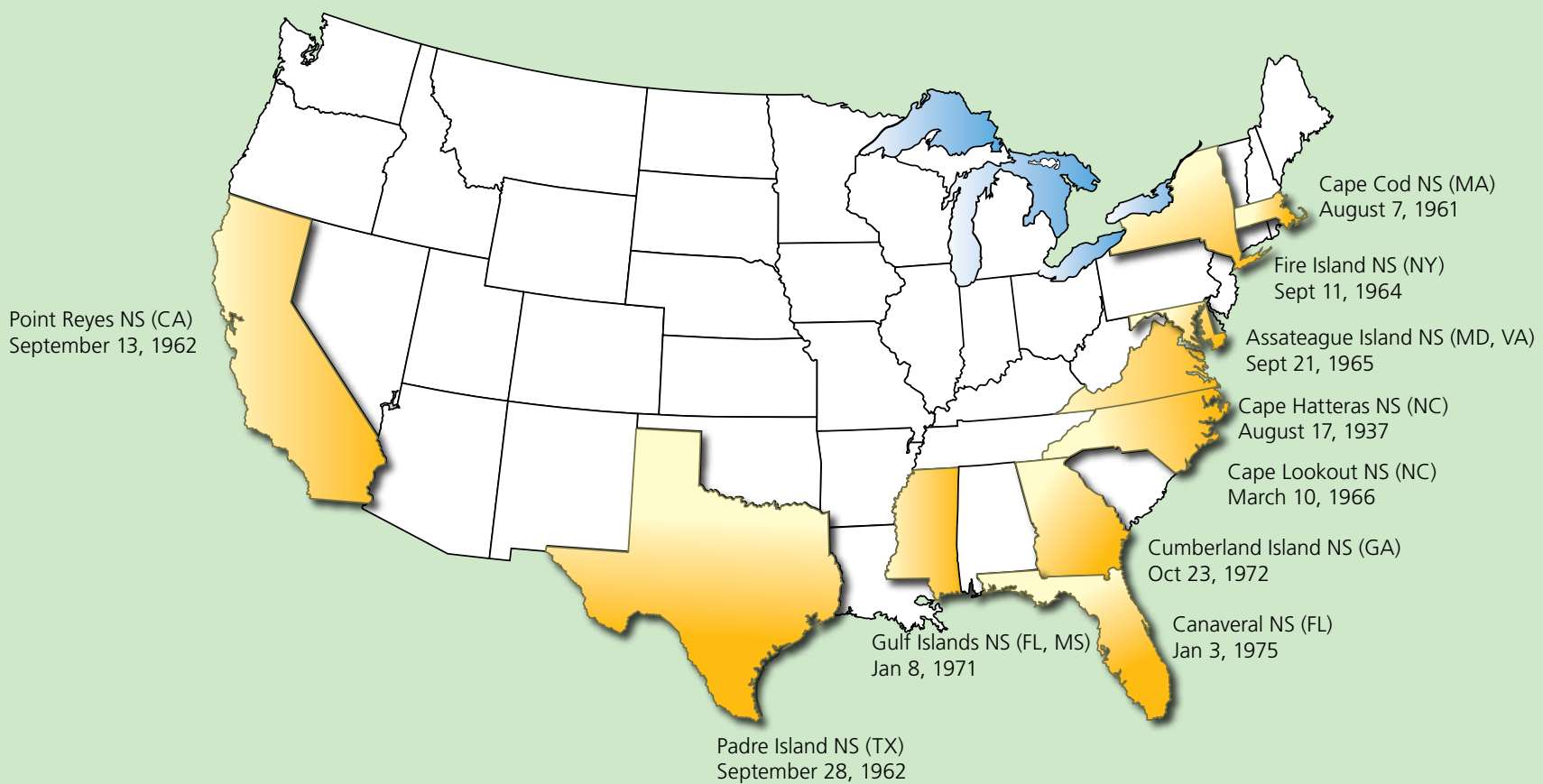
## Creating Seashore Parks

In 1953, the first national seashore was established at Cape Hatteras, on the dynamic barrier island system off the North Carolina coast. Local, state, and federal advocates for protection of the Point Reyes peninsula were encouraged by this success. However, Drakes Bay Estates, with proposed development of over 400 housing units, began construction near Limantour Beach in 1956, lending urgency to the conservationists' endeavor.

In the late 1950s, legislation was first proposed to establish a national seashore at Point Reyes. When he took office, President John F. Kennedy announced two conservation agendas: the creation of national seashores, and the adoption of the Wilderness Bill. Having spent summers throughout his life along the Massachusetts coast on Cape Cod, the protection of these beautiful wild shores was close to Kennedy's heart. Key players in these struggles were President Kennedy's Interior Secretary Stewart Udall, Sierra Club executive director David Brower, Clair Engle, Clem Miller, and author Harold Gilliam, among many others. In August of 1961, Cape Cod became the second national seashore, lending further momentum for the Point Reyes cause. The 1962 Sierra Club publication of Gilliam's book, *Island in Time*, brought much-needed publicity and a poetic voice to the campaign to protect Point Reyes. David Brower distributed a copy to every member of the 87th Congress.

In his book, Gilliam noted: "only 240 miles out of the 3700 miles of shoreline from Mount Desert Island to Corpus Christi are dedicated to public purposes. The National Park Service administers a mere 55 shore miles along the 1700 miles of Pacific Ocean coast."

The 10 National Seashores with Their Authorization Dates



### Point Reyes National Seashore

Authorized in 1962, Point Reyes National Seashore preserves and protects over 71,000 acres, including 32,000 acres of designated wilderness and 80 miles of wild, undeveloped coastline. With its rich biological diversity, and cultural history, Point Reyes provides critical habitat to wildlife, is a repository for over 3,000 years of cultural history, and serves as a haven for the restoration of the human spirit.



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The National Park Service cares for the special places saved by the American people so that all may experience our heritage.

National Park Service  
U.S. Department of the Interior



Point Reyes National Seashore Association (PRNSA) is the primary nonprofit partner of the National Park Service at Point Reyes. PRNSA mobilizes community support for resource preservation projects within the park and provides environmental education programs that help visitors explore, discover and connect with the natural world. This publication was funded through a grant from the PRNSA. Learn more and consider becoming a member at [www.ptreyes.org](http://www.ptreyes.org).



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Momentum in favor of the park grew, prompting legislation to acquire the full 53,000 acres first proposed in 1935 by Conrad Wirth. Twenty-seven years later, the dream of creating a National Park site at Point Reyes seemed to be coming true. Congressional floor debates for the Point Reyes legislation took place in the summer of 1962, during which battles were waged over incorporation of ranches and other private property into the seashore. The intense effort finally ended with the passage of S. 476 and, on September 13, 1962, President Kennedy signed “The Point Reyes Authorization Act” into law. Sadly, President Kennedy did not live to visit the newly created seashore.

### A Visit from the First Lady

On October 20, 1966, Lady Bird Johnson and Interior Secretary Stewart Udall came to Point Reyes to dedicate the park. Standing on Drakes Beach, with the Pacific as her backdrop, she warned that, “The growing needs of an urban America are quickening the tick of the conservation clock. Let us dedicate Point Reyes National Seashore to the vitality of the American people, and to generations yet unborn who will come here with the continent at their backs and gaze afar into immensity.” She called Point Reyes “a bright star in the galaxy of conservation achievements of the 1960s.”

Congress, however, dragged its heels in appropriating the authorized funds. The original \$14 million ran out before half of the 53,000 acres were acquired, and as land values soared in the years to come, the National Park Service was often just one step ahead of the developers. Again, individuals with a dream of protecting the area rallied together. More than 450,000 people wrote to the White House in support of park funding. Their efforts, organized by Peter Behr of Save Our Seashore, finally got the job done. On April 3, 1970, an additional \$43,500,000 was appropriated to reach the goal of 53,000 acres.

Additional legislation established the Point Reyes Wilderness on October 18, 1976. This designated 23,370 acres of wilderness in the park, and an additional 8,003 of potential wilderness:

“without impairment of its natural values, in a manner which provides for such recreational, educational, historic preservation, interpretation, and scientific research opportunities as are consistent with, based upon, and supportive of the maximum protection, restoration, and preservation of the natural environment within the area.”

Legislation like the Marine Mammal Protection Act (1972) and the Endangered Species Act (1973) shaped the Seashore’s protection of critical habitats.

In the 1970s, a new recognition evolved that the National Seashore must play a role in preserving the cultural heritage of the area. Kule Loklo, a replica of a Coast Miwok village at Bear Valley, was built as an introduction to thousands of years of Coast Miwok history. The Point Reyes Lighthouse was retired in 1975, and quickly became an icon and a visitor destination. The Seashore continues to support the traditions of dairies and ranches, even as thousands of acres of agricultural land has been lost state- and nation-wide.

Input from various community and environmental groups continued to influence policy at the National Seashore. The sentiment persisted that Point Reyes should protect the vibrant cultural history of the area, yet remain as wild as possible. It was recognized that merely protecting the area from development was not enough. Efforts had to be made to defend and re-establish the natural processes and critical habitats, which tied together and defined this place.

Tule elk, a species rescued from the brink of extinction, were reintroduced within a part of their former range at Point Reyes in the late 1970s. Efforts have been made to limit the effects of erosion on the streams critical to the populations of salmon and steelhead trout. Elephant seals returned to Point Reyes and hauled out onto isolated, local beaches. The first breeding colony formed in the early 1980s.

The Seashore entered a new era as it grappled with the best ways to protect and manage the assets in its care. Concerns over the protection of threatened and endangered species, the impacts of invasive species, the preservation of water quality, and the need for a baseline understanding of the resources led to increased scientific investigation and strategic planning.

Community groups, volunteers, and partners have always been key to Point Reyes’ success, but a new emphasis was placed on working together to carry out research and monitoring, provide education, and present opportunities to understand and appreciate the park.



September 13, 1962. President John Kennedy presents California Representative Clem Miller with the pen he used to sign the National Seashore authorizing legislation. Pictured standing behind the President are U.S. Interior Secretary Stewart L. Udall (third from left), Senator Clair Engle of California (fifth from left), and Executive Director of the Sierra Club David Brower (at far right).



Lady Bird Johnson, wife of President Lyndon Johnson, came to Point Reyes to dedicate the park in October 1966. Here she is snapped dancing in the surf at Drakes Beach with Interior Secretary Stewart Udall and California Governor Pat Brown.

At the end of the 20th Century, there was a growing awareness of new challenges facing parks. Global climate change and ocean health have led people to realize that the issues that threaten Point Reyes today are not just regional or national, but worldwide in scope.

As immense and overwhelming as problems may seem to an individual, remember what can be done when people have a dream. This place has always been a symbol of what can be accomplished when people work together—individuals taking an interest, getting involved, and making a change.

National Parks are one of the crucial places where citizens—both young and old—can develop a deeper understanding of our human interdependence with the increasingly fragile planet we inhabit. In our “progress” toward ever-more sophisticated technologies, we have harvested, mined, drilled, and developed our way through more natural resources than all of our ancestors combined. Focusing our sights on progress measured only through this same prism can’t be sustained. Wild places provide opportunities for progress measured on a different plane—conservation, simplicity, stewardship, wonder, community, and compassion.

Throughout the park’s 50 years, millions of visitors have hiked the trails, surfed the waves, camped in its wilderness campgrounds, watched migratory whales and breeding elephant seals, and enjoyed the restful sound of waves lapping the shore. Only through our vigilance will the wild character of the forests and beaches—preserved through the efforts of our tireless predecessors—be enjoyed by generations to come.

# Plan Your Visit



## Bear Valley Visitor Center

Stop at the Seashore's primary visitor center for general information and to view the Seashore's orientation film. Indoor exhibits introduce the plants, animals, and people of the area. Free park maps and beach fire permits are available at the main desk. Permits for backcountry and boat-in camping are issued at the camping desk. Camping reservations are available up to six months in advance at [www.recreation.gov](http://www.recreation.gov)

### Hours:

Monday–Friday, 9 am to 5 pm  
Weekends and holidays, 8 am to 5 pm

### Outdoor Exhibits:

Earthquake Trail, Kule Loklo, Morgan Horse Ranch and Woodpecker Trail

**Phone Number:** 415-464-5137

visit our website: [www.nps.gov/pore](http://www.nps.gov/pore)

## Science On A Sphere

Science On a Sphere (SOS)<sup>®</sup> is a room sized, global display system that uses computers and video projectors to display planetary data onto a six foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere<sup>®</sup> as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain what are sometimes complex environmental processes in a way that is simultaneously intuitive and captivating.



Check at Bear Valley Visitor Center for program times.

## Drive Time From Bear Valley

Lighthouse/Chimney Rock Parking	45 minutes
Drakes Beach	30 minutes
Limantour Beach	20 minutes
Point Reyes Hostel	15 minutes
Tomales Point	30 minutes
San Francisco (via Sir Francis Drake Blvd)	1 hour
San Francisco (via Highway 1)	1.5 hours
Bodega Bay	1 hour
Petaluma	30 minutes
Novato	30 minutes
Sonoma/Napa	1 hour

Please drive carefully. Follow posted speed limits and watch for cyclists. Gasoline is only available locally in Point Reyes Station on Highway 1.

## Bear Valley Outdoor Exhibits

### Earthquake Trail

Starting from the Bear Valley Visitor Center picnic area, this short loop trail highlights the San Andreas Fault. View exhibits about geology and the great San Francisco earthquake of 1906. Open daily, sunrise to sunset. Wheelchair-accessible.



### Kule Loklo

This Coast Miwok cultural exhibit provides a glimpse of life here before European contact. The replica village is an easy half-mile walk from the Bear Valley Visitor Center. Learn about Coast Miwok culture as you walk along the trail. Open daily, sunrise to sunset.



### Morgan Horse Ranch

This working ranch at Bear Valley is for Morgan horses used for hiking trail patrol at Point Reyes National Seashore. The Morgan is the first American horse breed. Self-guided exhibits, corrals and demonstrations are a part of the ranch. Open daily, 9 am to 4:30 pm.



### Woodpecker Trail

Take a lovely shaded stroll through mixed laurel, oak, and fir forest. This trail offers glimpses of acorn woodpeckers hard at work creating granaries in trailside trees. Self-guided exhibits offer insights into deeper understanding of this forest dynamic. Open daily, sunrise to sunset.



## Kenneth C. Patrick Visitor Center

Drive 30 minutes from Bear Valley to the Kenneth C. Patrick Visitor Center and beautiful Drakes Beach. Enjoy exhibits on 16th and 17th century maritime exploration, marine fossils, and marine environments. You can find refreshments next door at the Drakes Beach Café.

The Annual Sand Sculpture contest is held on the Sunday of Labor Day weekend. Inquire at any visitor center or check the park's website.

### Hours:

Weekends and federal holidays, 10 am to 5 pm

**Phone Number:** 415-669-1250

### Drakes Beach Café

Serving local, organic, sustainably produced foods. Open weekends; weekday hours vary seasonally.

For more information, call 415-669-1297.



## Lighthouse Visitor Center

Drive 45 minutes from Bear Valley to the lighthouse parking area. Walk 0.4 miles up a moderately steep hill to the Lighthouse Visitor Center. Some handicap accessible parking is available within 700 feet of the visitor center. Inquire at any visitor center for access to this parking area. An observation deck overlooks the lighthouse. When the stairs are open, you may walk down the steep 308 steps to the lighthouse.

Fog and wind are common throughout the year. Dress in layers. For current weather information, contact any visitor center or view the lighthouse webcam:

[www2.nature.nps.gov/air/WebCams/parks/porecam/porecam](http://www2.nature.nps.gov/air/WebCams/parks/porecam/porecam)

### Hours:

Visitor Center : Thursday–Monday, 10 am to 4:30 pm

\*Stairs: Thursday–Monday, 10 am to 4:30 pm

\*Lens Room: Thursday–Monday, 2:30 pm to 4:00 pm

*\*High winds or maintenance work may close the stairs. Inquire at any visitor center.*

**Pets are not permitted beyond the bounds of the paved lighthouse visitors' parking lot.**

**Phone Number:** 415-669-1534

QR  
Codes



Park Map



Park  
Hiking Map  
South

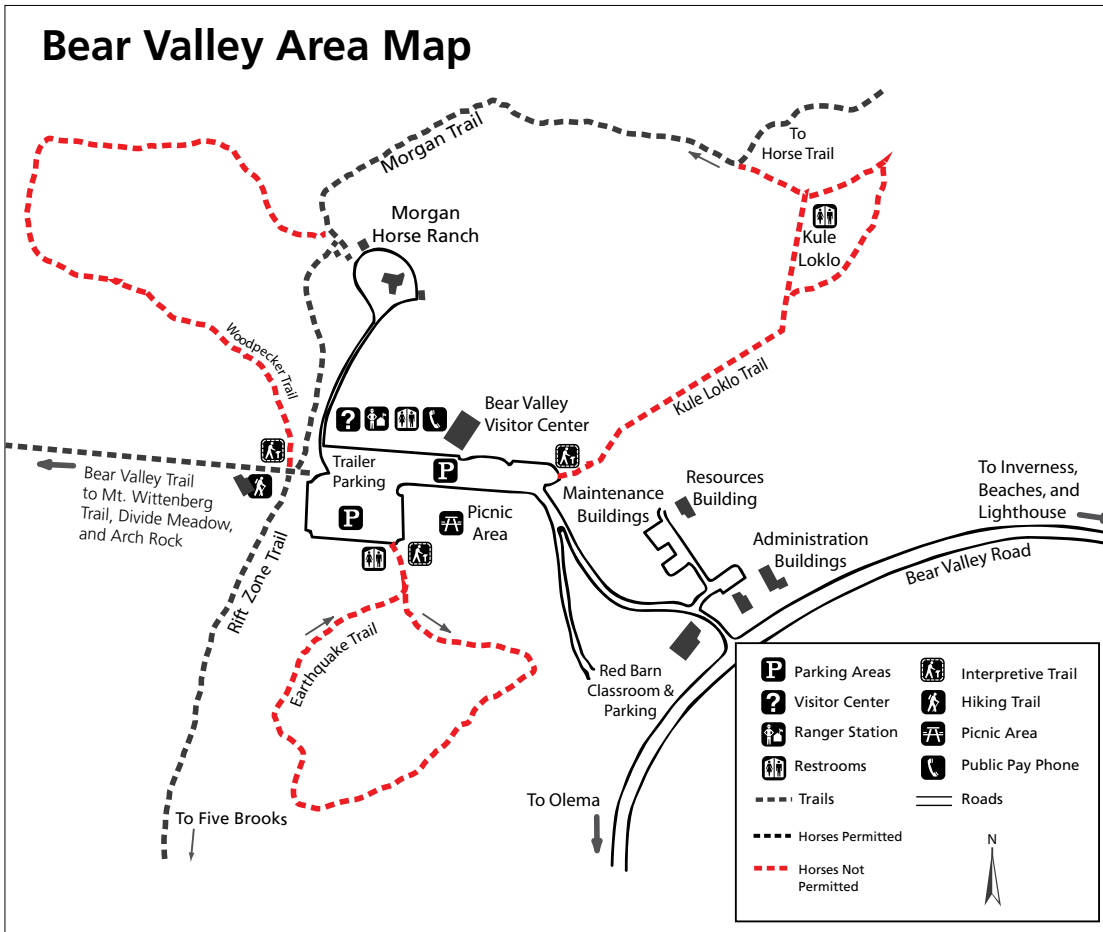


Park  
Hiking Map  
North



GPS Coordinates  
for Point Reyes  
Lighthouse

# Explore Point Reyes



## Tidepooling — A Rare Treat



A common question asked here is, “Where can I see tidepools?” Only a few times a year, at negative low tides, does the intertidal zone open its doors to allow a glimpse of the harsh life of the plants and animals that live there. Plan ahead by finding out which days offer the safest opportunities for tidepool exploration. As the tide recedes more rocks are exposed, allowing you to see into these dynamic and enchanting life zones.

Look at the chart below to plan your next tidepool adventure and to see just how rare a perfect tidepooling day is. Keep your eye on the water for rogue waves, watch your footing on slippery vegetation, and be mindful of the creatures living there.

Date	Time	Height in feet
11/13/2012	04:04 pm	-1.3
12/11/2012	03:25 pm	-1.3
12/12/2012	04:13 pm	-1.7
1/09/2013	03:13 pm	-1.2
1/10/2013	03:59 pm	-1.5
2/07/2013	02:57 pm	-0.9
2/08/2013	03:42 pm	-1.1
2/09/2013	4:23 pm	-1.0
4/28/2013	7:41 am	-1.4
4/29/2013	8:40 am	-1.2
4/30/2013	9:38 am	-1.0
5/28/2013	8:21 am	-1.5
5/29/2013	9:14 am	-1.1
6/26/2013	7:58 am	-1.3
7/25/2013	7:30 am	-1.0
12/1/2013	3:45 pm	-0.9
12/30/2013	3:29 pm	-1.1
12/31/2013	4:14 pm	-1.5

There are many ways to experience the outdoors at Point Reyes. Whether in the water or on the land, from a bike or a horse, in a kayak or canoe, or on your own two feet, please be prepared. With the variable weather found here, it’s advisable to dress in layers. Bring plenty of water and sunscreen. Ask for information at a visitor center, consult a hiking guide, or do some internet research, before embarking on your adventure. Call the weather information line at 415-464-5100 for current weather conditions.

### Hiking

Point Reyes is graced with over 150 miles of hiking trails. Some trails ascend steeply into the forested zones along the Inverness Ridge, but there are also less ambitious options amongst the coastal scrub and prairie communities, and in the valleys. An in-depth trail guide and hiking map are available at any visitor center or online.

### Camping

In the seashore, we have 4 backpacking camps; car camping is not available. You can make reservations up to six months in advance by going to [www.recreation.gov](http://www.recreation.gov), or calling 877-644-6777.

- Minimum walking distances to campgrounds:
- SKY CAMP 1.4 miles from Limantour Road
  - COAST CAMP 1.8 miles from Laguna Trail Parking
  - GLEN CAMP 4.8 miles from Bear Valley Parking
  - WILDCAT CAMP 5.5 miles from Palomarin Parking

### Paddling

Kayaking and canoeing are popular pursuits at Point Reyes. Tomales Bay, a narrow, 12-mile-long shallow estuarine bay provides wonderful opportunities for novice and experienced paddlers. From July 1 through February 28, paddling is permitted in Drakes Estero.

### Cycling

Bicycles are permitted on all paved park roads and on a limited number of trails at Point Reyes. On the official park map, these trails are indicated with dashed red lines. Watch for horses and hikers; maximum speed limit is 15 mph.

### Horseback Riding

Equestrians may use all trails at Point Reyes, except those marked in red above. On weekends and federal holidays, there are a few restrictions on trails in the Bear Valley area. Please check at a visitor center for restrictions and current trail conditions

### Visiting With Your Dog

Dogs, on leash, are welcome on four park beaches: Limantour Beach, North Beach, South Beach, and Kehoe Beach. The short trail leading to Kehoe Beach is the only park trail where dogs are permitted. Along the Bolinas Ridge Trail, in nearby Golden Gate NRA, dogs on leash are also allowed. For more information, please check at any visitor center or online.

## Hands and Hearts — Our Volunteers

Just as grass roots efforts by committed citizens helped create the park 50 years ago, today Point Reyes National Seashore volunteers play an indispensable role, often making the difference between whether a project is accomplished or not. But the experience of volunteering is a reward unto itself, as attested by the two volunteers below.



The famed Russian author Vladimir Nabokov said, “To be in a rarified land where a rare butterfly and it’s host plant exists: all that I love rushes in like a momentary vacuum ... and I am at one.” That is what volunteering is for me.

The fates have handed me a Border Collie talent to id butterflies on the wing. I love being in a place where my talent is not only appreciated but needed. The staff is completely inviting for all of us “nature geeks.” It’s a rarified place—the National Seashore. Its beauty is so vast and humbling, it’s stewardship transcends employees.

~ Liam

I volunteer because Point Reyes needs to be preserved so future generations can have the same enjoyment it has given me all these years. The park, its staff, volunteers, and interns devote their time and love to make the park a better place for their community to enjoy. This place is full of excitement, curiosity and drive. Never have I worked in an environment with so much heart and dedication. The park staff are doing what they love and are sharing their knowledge with us. Participating as a volunteer has allowed me to give back to my community, and express my love and passion for this amazing spot on the planet.

~ Ariel

If you would like more information about volunteering at Point Reyes National Seashore, please contact the Volunteers-In-Parks Program Manager at [PORE\\_volunteer@nps.gov](mailto:PORE_volunteer@nps.gov) and 415-464-5225 or visit <http://www.nps.gov/pore/supportyourpark/volunteer>.

# Point Reyes, From the Ground Up

Over 5,000 years of human history await your discovery at Point Reyes. More than just a natural sanctuary, this peninsula holds within its forested ridges, rolling grasslands, and coastal expanses the stories of people who came before us. Their cultures, interactions, and experiences are echoed in the landscape. These human layers offer a window into our past and hold the potential to shape our lives even today.

## Coast Miwok—The First People

Coast Miwok people inhabited small family villages in present-day Marin and Sonoma Counties for thousands of years. They enjoyed a rich economy based on gathering, fishing, and hunting. At the time of European contact, an estimated 3,000 to 5,000 Coast Miwok lived in the area.

Acorns, a nutritious starchy seed, were a favored staple of the Coast Miwok. A family of four ate about 500 pounds of acorns a year. Acorns, collected in autumn, were stored in granaries, and later prepared and cooked by the women.



© Photo courtesy of the Ethnographic Museum of the University of Zurich

Miwok women also gathered and prepared plant materials—such as willow, hazel, lupine, and sedge—for making baskets. Many of these beautiful baskets are now in museum collections around the world. Miwok homes were built from anchored poles, covered with bark, or, in summer, from bundles of tule—a wetland sedge.

You can learn more about Point Reyes' first human inhabitants by taking a short walk to Kule Loklo, a recreation of a Coast Miwok village, near the Bear Valley Visitor Center (see map on page 5).

## Ranching at Point Reyes

The Point Reyes Peninsula has a legacy of ranching. While cattle ranching existed during the Mexican Rancho period, dairying came to the Point Reyes peninsula soon after the California Gold Rush. The cool moist climate of Point Reyes provides ideal conditions for dairy cows—plenty of grass with a long growing season and abundant fresh water. Some early ranchers came west looking for gold, but, disappointed in that quest, found their fortunes making golden wheels of cheese and casks of butter.

The 1880 *History of Marin County* remarked of Point Reyes, “The grass growing in the fields on Monday is butter on the city tables the following Sunday.” The national symbol of quality in butter became the letters PR in a star stamped into cheesecloth-wrapped casks of butter.

Land disputes following the establishment of the state of California, and the resultant unpaid legal fees, led the San Francisco law firm of Shafter, Shafter, Park, and Heydenfeldt to own the entire peninsula. They sold the northernmost tip to Solomon Pierce and divided up the remaining land into tenant dairies named alphabetically: “A” Ranch—closest to the Lighthouse, through “Z” Ranch—at the summit of Mt. Wittenberg. “W” Ranch is the site of Bear Valley Visitor Center.



The creation of the National Seashore in 1962 brought another change in ownership to the peninsula. Legislation creating the park provided funds to purchase ranch lands and then lease the land back to the existing ranchers. The National Park Service and the ranchers act as stewards of the natural landscape as well as the rich cultural landscape of agricultural history.

The open lands of ranch country provide a needed vista in the crowded urban landscape near the park. This agricultural landscape also provides fresh and healthy food to the local communities. Perhaps, more importantly, places such as this pastoral area provide a connection between past and present, an opportunity to appreciate the ways of our ancestors and a time to reflect on contemporary life.

“We need to keep some of our vanishing shoreline an unspoiled place, where all men, a few at a time, can discover what really belongs there—can find their own Island in Time.”

-Harold Gilliam, *Island in Time*, 1962.

## An Inhospitable Place



©Alexei Roudnev

Point Reyes is one of the windiest and foggiest places on the Pacific Coast. Powerful winter storms that often come howling in from the southwest dump volumes of water along the Inverness Ridge and continue across the Central Valley to blanket the Sierra Nevada with snow. In addition, springtime wind speeds can exceed 130 mph (210 kph). In summer, the temperature differential between the cool Pacific Ocean at around 52°F (11°C) and the warmer land causes dense fog to form along this coast. These hazardous conditions threaten the safety of the cargo and sailors that pass by the point. In the 1850s, as San Francisco became a major port, Congress authorized the construction of a lighthouse at Point Reyes.



From May through December, sunset lighthouse programs are given at Point Reyes. Reservations are required. Please call the visitor center for more information.

When the Point Reyes Lighthouse is open for tours, it provides a glimpse into the 19th Century, when machines were king. The historic equipment—manufactured in Paris—was installed here in 1870, and warned mariners for 105 years until its retirement in 1975. The first-order lens—with 1032 pieces of hand-ground crystal—and the clockworks that drove it are in good condition and look almost as if they had just arrived. Take a walk back in time—visit the headlands with its compelling beauty and distinctive lighthouse. Explore the historic Point Reyes!

## U.S. Lifesaving Service

From 1889 to the present, the U.S. Lifesaving Service, now integrated into the U.S. Coast Guard, watched over the peninsula beaches from their stations along the coast.

The first station was three miles north of the lighthouse on the stretch of sand commonly called the Great Beach. At that time, ship rescue equipment needed to be launched directly into the surf.

The station was staffed by a keeper and 6 to 8 surfmen who spent much of their time training. It was during training operations that three surfmen lost their lives—Fred Carstens, Andrew Anderson, and George Larson. John Korpala died of natural causes possibly associated with the cold and damp conditions of the station. They are interred near E Ranch on a sloping knoll overlooking Schooner Bay.

The dangers of launching rescue equipment from the Great Beach prompted the Lifesaving Service to construct a new rescue station in 1926-27 at Chimney Rock. When helicopters and newer boats were developed, rescue operations were moved from the Point Reyes peninsula to stations in Bodega Bay and Alameda. The historic cemetery is maintained by volunteers from the US Coast Guard and park staff.

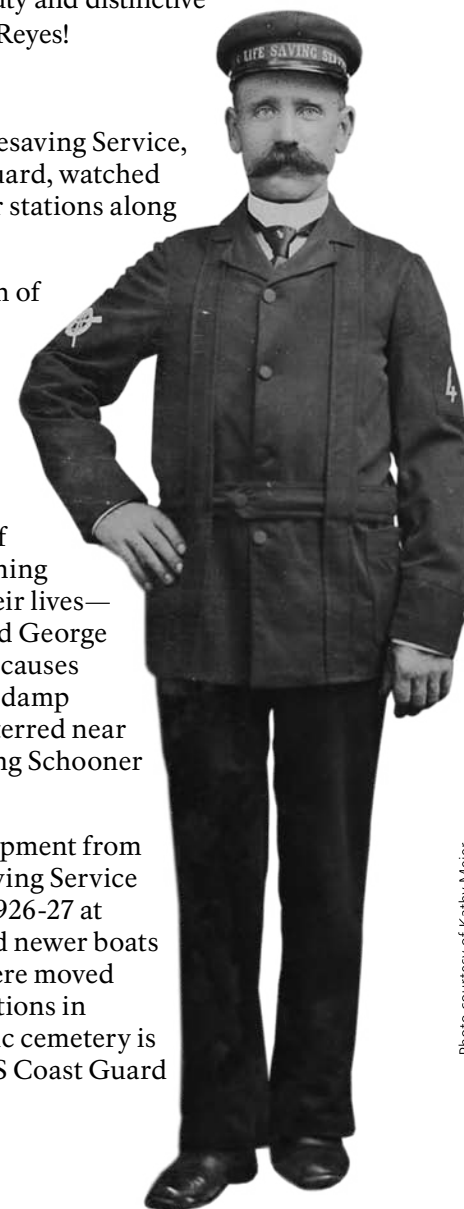


Photo courtesy of Kathy Meier

## Point Reyes—A Mover and Shaker

Point Reyes National Seashore is a park on the move. The eastern border of the park parallels the San Andreas Fault, the tectonic plate boundary separating the Pacific Plate from the North American Plate. If you draw a line through the middle of Tomales Bay in the north through the Bolinas Lagoon on the south, this is the path of the San Andreas Fault Zone. Faults come in three types: divergent, convergent, and transform. The San Andreas Fault is an example of the third—a transform fault—where plates pass one another like cars on a two way street.

Many visitors of our park are surprised to find that you are unable to look at a crack, chasm, or other defining feature that is the actual fault. The San Andreas Fault has created the Olema Valley, and the flooded sections of the valley form Tomales Bay to the north and Bolinas Lagoon to the south. The ridges parallel to the valley are called shutter ridges, a feature typically associated with transform fault zones.



Movement along the San Andreas Fault ranges from about 1.4 to 2 inches (3.5-5 cm.) a year (about the speed your fingernails grow). However, instead of creeping along at a slow steady pace, the plates lock together for many years and build up stress. When the plates slip and release the stress, waves of energy are sent out and are experienced as an earthquake. The last time the plates here slipped by each other was during the great San Francisco Earthquake of 1906. The greatest displacement in this area was about 24.5 feet (7.5 meters)!

The earth's three rock types—igneous, metamorphic, and sedimentary—are all found at Point Reyes. Our igneous rocks are granitic, which cooled beneath the surface of other rocks before erosion revealed them. These 80 to 100 million year old rocks originated in southern California, probably near Tehachapi. They are our basement rocks, and other rock types overlie them. In some places—like Kehoe Beach—the parent rock in which the granitic rocks formed are found. Altered by heat and pressure, these metamorphic rocks are the oldest rocks in the park.



The Drakes Bay Formation is seen here in the light-colored cliffs near the Drakes Beach Visitor Center.

Our granitic rocks began moving before the San Andreas Fault formed and docked off of Point Lobos, where several distinct layers of rock formed above it. As a result, Point Reyes has six major sedimentary formations in it. The peninsula then started migrating north along the San Gregorio fault to merge alongside the San Andreas fault along which it now travels.

Point Reyes National Seashore is a park on the move, currently docked at Olema and Point Reyes Station, but destined to continue to move. Sea level rise also may bring changes to our park. At the end of the last ice age, rising sea level resulted in flooded valleys, creating Drakes and Limantour Esteros. What will the park look like in a century or two? Whatever the outcome, the rocks of Point Reyes will be here for your children's children to experience and appreciate.



Point Reyes Conglomerate, formed tens of millions of years ago adjacent to the Monterey Peninsula, can most easily be seen around the visitor center at the lighthouse.

## Lessons Learned and Disasters Survived

In October 1995, an illegal campfire, smoldering in the pine duff, was rekindled by strong east winds and escaped initial suppression efforts. The fire raced rapidly through the resinous Bishop pine forest to the ocean. By the time it was contained, the fire had consumed 12,000 acres of park land and destroyed forty-five structures on Inverness Ridge. It came to be known as the Vision Fire for its origin near the Mount Vision summit.



The Vision Fire burning down from Inverness Ridge.

The event led ecologists to important insights about the adaptations of the local flora and fauna to high intensity fires. Park scientists lobbied for park inventory and monitoring to develop baseline data for future comparison. Despite the great property damage, the ecosystems now abound with lush native vegetation, attesting to the cycle of destruction and renewal following a fire's path.

Natural wetlands perform important functions for humans and wildlife. Wetlands retain floodwaters, improve water quality, and provide wildlife habitat. Since the early 1900s, levees constructed at the southern end of Tomales Bay for roads and dairy farms effectively disconnected Lagunitas Creek and its tributaries from their floodplains. These actions substantially degraded the wetland functions in what was once one of the largest integrated tidal marsh complexes in Tomales Bay.



In 2000, the National Park Service acquired the Waldo Giacomo Ranch for the purpose of wetland restoration, and in October 2008 the last levee was breached. One of the most dramatic changes in the new Giacomo Wetlands is the sweeping expanse of water that now spreads across the former dairy pastures with the twice-daily tidal flood. It is readily visible to people who live on the wetlands' perimeter, who hike on the local trails, and who stop at the Limantour Road lookout. The Giacomo Wetlands is transforming from green pastures dotted with grazing cattle to a shimmering expanse of blue water teeming with birds, otters, and salt-tolerant plants.

## Birding at Point Reyes

The Point Reyes peninsula offers wildlife enthusiasts many opportunities for viewing and experiencing the wildness of a California that is disappearing. One of those opportunities is seeing the diversity of bird life throughout the year.

Nearly 490 species of birds have been seen at Point Reyes National Seashore, totaling around 50% of North American bird species! With a variety of habitats from Bishop pine and Douglas fir forests, to coastal scrub and grasslands along with shoreline, and both fresh and salt water systems, Point Reyes National Seashore is uniquely situated for an avian assortment.

Regardless of your skill level, every season at Point Reyes has its highlights. Winter brings rafts of ducks such as Green-winged teal, Northern shoveler, Northern pintail, Gadwall, and American wigeon. Also arriving are a host of sparrows like the Fox, Lincoln's, and Golden-crowned before they continue their journeys to other winter destinations. Spring reveals beves of California quail and a parliament of owls raising and fledging their chicks. Summer divulges flights of Tree, Violet-green, Rough-winged, Cliff, and Barn swallows and charms of American goldfinches. Not to be outdone, fall exposes sieges of herons from the stately Great blue to the secretive Green, in addition to numerous wood warblers that appear to be completely lost.

There is no need to feel inferior to someone who may be using very expensive optical equipment. The most important thing to remember is that you learn to identify birds by watching and listening for them while you are in the field. Keep your eyes up and enjoy.



The Willet (*Tringa semipalmata*) feeds by probing in the soft mud and sand for small invertebrates like mole crabs.

# Just for Kids

## A Snapshot of Point Reyes

In the space below, capture your favorite view of Point Reyes National Seashore by drawing a "snapshot" of what you see.



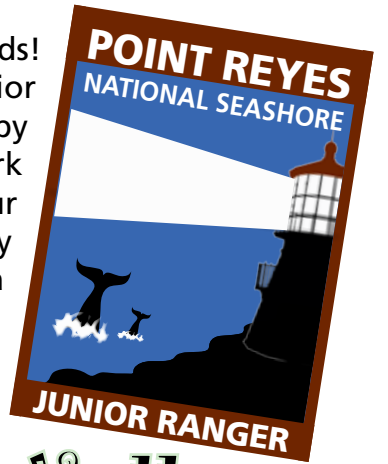
## Interview a Ranger

1. What is your name and your job title?
2. How long have you worked for Point Reyes National Seashore?
3. List 3 things you do to help preserve the park.



Park rangers work hard to protect park resources and park visitors. Introduce yourself and interview a park employee to learn more about park jobs.

Hey Kids!  
You can earn a Junior Ranger Badge by learning about the park and completing our Junior Ranger Activity Book. Pick one up at a visitor center today.



## Bear Valley Scavenger Hunt

Find an animal in the Bear Valley Visitor Center that:



Has spots



Has stripes



Has a shell



Has feathers



Has scales



Has whiskers



Is bigger than you



Is smaller than you

## True or False?

The animals of Point Reyes do amazing things!

Read the exhibits in the Bear Valley Visitor Center to see if the statements are true or false. Circle the correct answer.



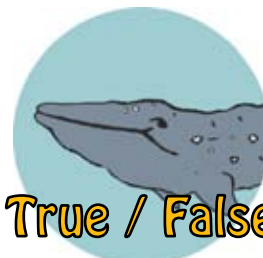
True / False

Brown Pelicans are bad divers. They swim in the water hunting for food.



True / False

Tule Elk were nearly hunted to extinction. Their population has grown from 20 to 4,000.



True / False

Gray Whales migrate over 10,000 miles every year.



True / False

Elephant Seals can weigh up to 6,000 pounds.