A Land in Motion

transformations and sudden, violent jolts that shake the earth; the rhythmic play of sea-spray along the coast; wings of birds flashing in flight; drifting shrouds of mist and fog; grazing deer who occasionally follow your movements with soft eyes; migrating whales off the shore; and the ebb and flow of Pacific tides.

The Point Reyes Peninsula is an unusual, dislocated land which long baffled geologists. Why should the rocks of this craggy coast match those of the Tehachapi Mountains, more than 500 kilometers (310 miles) to the south? The answer lies in continental drift: the constant motion of the Earth's crust. The peninsula rides high on the eastern edge of the Pacific plate. This, one of the six great plates forming most of the Earth's crust, creeps steadily northwestward about ten centimeters (three inches) a year. The

slower-moving American plate. Here in Olema Valley, near park headquarters, these two great land masses grind together. Where one plate ends and another begins cannot be pinpointed accurately, for a single fault line does not exist. This meeting of the plates is, quite simply, a rift zone, which contains many large and small faults running parallel and at odd angles to one another. Because each plate cannot move freely, tremendous pressures build up along this junction. The jumbled nature of the surface landscape is the manifestation of stress far below the surface of the Earth, often as much as 300 or 400 kilometers deep. From time to time this pressure becomes too great and the underlying rock breaks loose with dramatic and sometimes catastrophic results and the land surface itself actually moves. This is what happened in the Olema Valley in 1906; the result was the dev-

The story of Point Reyes is a study in motion—slow continental rest of North America, except Alaska, is borne westward on the astating San Francisco Earthquake. At this time, the Point Reyes A succession of summer days east of Inverness Ridge may be Peninsula was thrust five meters (16.4 feet) northwestward.

> The varied surface patterns of Point Reyes are more obvious than the normally slow changes underground. A belt of topographic changes follows the San Andreas Fault. You can see streams and estuaries cutting through the landscape of folded hills and valleys. Awaiting you are many kilometers of beaches within sight of Douglas-fir and bishop pine forests. Here, you may watch deer browsing near rocks where sea lions bask in the sun; and you may count many of the 361 species of birds that have been seen here over the years.

> As if to accent the separation along the San Andreas Fault, the weather may vary quite markedly from one side to the other.

warm and sunny, while on the ocean side, a chilling fog may hide the sun. The clearing of fog often signals the onset of strong winds. So, if you're planning to explore the park on foot, prepare yourself for cool weather, dampness, and wind. Remember that weather varies, not only from day to day, but from hour to hour.

From February through July, mild weather carpets the land with flowers. Summer is the time for a pleasant hike along the peaceful trails of Inverness Ridge. Autumn weather and beach activities seem to be perfectly matched. The thrill of watching gray whales migrating southward to Baja California and back to the Bering Sea is compensation for the wet Point Reyes' winter. But even if you don't see a whale, the bays and esteros will be thronged with seals and migratory shore birds.

Man at Point Reves

dians inhabited these shores. Their lives were shaped by a pattern of changing seasons and the uneven temper of the weather along the coast. As peaceful hunters and gatherers, they moved catch salmon and shellfish, and to hunt deer and elk.

In the summer of 1579, these friendly Indians greeted Francis Drake, an English adventurer in the service of Queen Elizabeth I of England, as he beached his ship, the Golden Hinde, on the California coast to make repairs. Although it is not definitely known, Drake's anchorage is believed to have been in the protected curve of Point Reyes near Drakes Beach.

Drake and his men stayed for about five weeks that summer. The Miwoks supplemented the Englishmen's rations with boiled fish and meal ground from wild roots and celebrated these strangers' arrival with wailing, orations, and offerings. Wandering inland, they sighted herds of deer and one of the crew

For centuries before Europeans arrived, the Coast Miwok In- use of man." Before the Golden Hinde sailed westward across the Pacific toward England, Drake named this land Nova Albion, meaning New England. He doubtless noted, in the pale cliffs that rise sheer above the beach, a resemblance to the Dover coast about in this plentiful land only to harvest acorns and berries, to on his own English Channel. Through the crude sign language with which he and the natives had learned to communicate, Drake concluded that they wished to surrender their allegiance to his sovereign. So, when Drake sailed away, he left behind him "a plate of brasse, fast nailed to a great and firme post," proclaiming Queen Elizabeth's reign over this land and its people.

Explorers from the outside world came and went. In 1595, Sebastian Rodriguez Cermeno's San Agustin was wrecked in a storm off Limantour Spit and several crewmen were lost. Stranded on Drakes Beach, Cermeno and the other survivors salvaged a small launch to carry them to Mexico. Since that time, porcelain pieces, believed to have come from the ship's cargo of Ming china, have turned up in excavations of various Miwok Indian dwelling sites. It was a Spanish explorer, Don Sebastian Vizcaino, who gave noted a landscape "farre different from the shoare, a goodly Point Reyes its name on January 6, 1603. Vizcaino's ship, sailing country, and fruitfull soyle, stored with many blessings fit for the north out of Monterey to explore the California coast and learn

what he could of the land and its inhabitants, was buffeted by fierce winds when attempting to enter the anchorage at Drakes Bay. Turning back to sea, Vizcaino drove past the rocky headlands which he named La Punta de Los Reyes, for this the 12th day of Christmas was the Feast of the Three Kings.

The English never returned to press their claim on Nova Albion, but left it for the Spaniards to colonize. Almost 200 years passed after Drake's visit, however, before settlers began to arrive. Indeed, San Francisco Bay, one of the world's great natural harbors, was not discovered by Europeans until 1769 when an overland expedition of Spanish explorers reached it. Mariners had repeatedly overlooked the narrow entrance to the bay in the seemingly smooth coastline south of the Point Reyes promontory. Even today from as close in as five kilometers (three miles), the Golden Gate is virtually undetectable with the hills of the East Bay and the headlands seemingly a continuous landmass.

Ships of many nations seeking trade in raw materials and furs began visiting the California coast in the early 19th century. Under increasing contact with the outside world and new ideas,

the settlers of California and Mexico revolted against the Spanish government and in 1821 established an independent Republic of Mexico. During the years of Spanish rule, the Miwok Indians of Point Reyes had been taken from their homelands to labor in the Spanish missions. Except for a few Miwoks who had managed to evade the missionaries and some survivors of the missions who wandered back after the Mexican revolution, Point Reyes had seen the last of its original inhabitants.

During Mexican rule, three "Lords of Point Reyes"-James Berry, Rafael Garcia, and Antonio Osio-held the entire peninsula through land grants, but not for long. The United States' conquest of California raised the curtain on the land speculators waiting in the wings. The eventual result was the breakup of the great domains into a number of cattle ranches. Beef and dairy cattle have roamed the brushy flatlands of Point Reyes ever since. Herds still graze in its pastoral zone, just as Congress intended when it passed legislation authorizing a National Seashore on September 13, 1962.



Fog rolls in over the hills and begins to filter



he Point Reyes Light cliff above the booming surf, while a short dis-California poppies

The varieties of landscape and seascape so closely intertwinedhere cliffs, beach, and number of visits stil





Visitor Information

When You Arrive Stop at the Bear Valley Visitor Center at the Bear Valley entrance to the park, the Ken-Center on Drakes Bay. and the Point Reves Light Visitor Center for further details on the story of Point Reyes. Always check at a visitor center for information on local weather. safety, and tide conditions. These centers will have directions to campgrounds outside the park, motels, eating places, riding stables, and bicycle

shops. Check on park
shops and exhibits

Camping
Car camping is not percenter has a good selection of books and maps to help you to a more thorough understanding of the area.

Administration Point Reyes National Seashore, containing 26,422 hectares (65,303 acres), is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose ad-

dress is Point Reyes,

CA 94956, is in charge.

mitted in the park. There are, however, four hike-in camp-

grounds: Sky, Glen, Coast, and Wildcat. The latter is reserved for group use. Camping is restricted to these campgrounds. Permits are required, but are available without charge at Bear Valley Visitor Center. Camping is limited to one night in each campground, or a total of three nights. Groups may spend two nights at Wildcat.

On the western side of Mt. Wittenberg at an elevation of 312 meters (1.024 feet). It is four kilometers (2.5 miles) from Bear Valley trailhead. It commands a view of Drakes Bay and surrounding hills 12 sites.

On an open grassy bluff about 200 meters (656 feet) above the beach. There are no trees. It's about 13 kilometers (eight miles) from Bear Valley trailhead, 14 sites.

This group camp lies in a grassy meadow flowing into the sea. About ten kilometers (six miles) from Bear Valley trailhead. Easy access to Wildcat

Each campsite will ac-

commodate a maximum of eight persons Glen Camp In a small, wooded val-(12 in Wildcat). All of the campgrounds have ley about eight kilorestrooms, drinking meters (five miles) water, and a hitch rail for horses. Each camphead. Reached by nearly-level trails. 12 coalgrill, and tent space.

Please Observe These Wood fires are prohib- For Your Safety

Dogs are not permitted on trails or in campgrounds. They are permitted on designated beaches and elsewhere in the park if on a leash

stoves, or canned heat. Driftwood fires are permitted only on sandy beaches. A camping permit must

ited in campgrounds

Use only charcoal, gas

No fireworks, firearms, or weapons of any kind.

Campsites should be left clean.

Quiet hours are from sunset to sunrise.

Sleeping on beaches is not only prohibited but dangerous: tides come up to the cliffs. Do not climb cliffs. They crumble easily: your foothold may disappear and leave you in thin air.

Hang your food on poles provided. Raccoons and foxes are gressive.

To See and Do

The best place to begin your visit is **Bear** Valley. From California Highway 1 at Olema, a one-minute drive brings you to park headquarters. As you turn onto the entrance road, you'll cross the San Andreas Fault and enter an "Island in Time." In the Bear Valley Visitor Center you'll find a seismograph monitoring earthquake activity throughout the world. You may want to acquaint vourself with some of the features of Point Reyes

by attending a slide

Palomarin, Five Brooks

at the visitor centers.

program in the nearby auditorium. Other areas can be reached points of interest here are: (1) The Earthquake Trail, a 1.2 kilo-meter (.7 mile) walk along the San Andreas Fault, (2) The 1.1 kilometer (.7 mile) selfguiding Woodpecker Nature Trail, (3) The Morgan Horse Ranch drive will take you and (4) Kule Loklo-a replica of a Coast Miwok Indian Village. beachcomb, or picnic.

Down to the Sea The impact of Point Reyes is most dramatic at the meeting of land and sea. Many such

by car, so begin by leaving the headquarters area (All distance figures will be from this point.) and turning left onto Bear Valley Road. Then 2.1 kilo-meters (1.3 miles) further on turn left onto Limantour Road. This to Limantour Beach where you can swim

Nearby Limantour Estero is a favorite of birdwatchers for its variety and number Return to Bear Valley Road which shortly becomes Sir Francis Drake Highway and continues to the tip of Point Reyes Peninsula.

Passing through the

village of Inverness, you come to a road (12 kilometers/7.4 miles from headquarters) that leads to Tomales Bay State Park, Abbotts Lagoon, and McClures Beach: a good area to explore tidepools. Better leave this side trip for another day and continue along Drake Highway

At 14 kilometers (8.7 miles) take the road to and South Beach at 26 kilometers (16.1 miles). Beachcombing is good the Mount Vision Overlook for a panoramic along these beaches. It's hard to tell what view of Limantour and Drakes Esteros and of the curve of Drakes turn up. Don't go near and Point Reyes the water! The hammering surf is extreme-Beaches to their meeting with the hammerly hazardous. head southern tip of

the peninsula.

Back on Drake High-

south to Point Reyes

Beach, a windswept stretch of sand that is

way head west and

meters (13.6 miles)

A good protected beach for swimming and wading, or just ly-ing in the sun—if it is Beach. The turnoff is at 25.3 kilometers (15.7 miles) between North and South North Beach at 22 kiloOn Drake Highway continue south to the Point Reyes Lighthouse, at 34 kilometers (21.1 miles). It's a five to ten minute walk from the parking area. Even if you don't elect to descend the 300 the view is impressive This point of land is

steps to the lighthouse, one of the most notorious hazards to navigation on the Pacific coast; the surrounding water is a graveyard of ships. The rocky shelves below are home for thousands of California murres. Sea

lions bask on the offshore rocks, and the overlook is a favored viewing area for the California gray whales'

These are only a few of the interesting points in the park accessible by car and short walks. There are many others which we hope you'll have the thrill of discovering for yourself. They are there to see, to touch, to photograph, to enfully acquainted with the park, leave the

roads and spend a day of exploration on foot You will no longer be an onlooker, but a part of the scene that is Point Reyes National Seashore.

Hiking the Trails Three types of terrain distinguish the trail system of Point Reyes —the pasture lands of Pierce Point and the Estero Trail; the chaparral ridges and California-laurel valleys to the east and west of Limantour Road; and the forests and meadowlands in the south-

Private Property

Potential Wilderness Area

and Research Natural Area

east end of the park.

Precautions When hiking, bring a supply of water Stream water is not fit to drink. Backpackers especially should be prepared for fog, cold, and wind in July as well as in

The waters at lakes and bay beaches are inviting after a warm hike: enter unknown waters with caution. Slopes and valley bottoms are usually covered with tall, dense

brush, much of it poison oak and stinging nettles. Staying on trails will help you avoid getting lost, in-

The chevrons on the trails shown on the map indicate steep trails. They point up-

jured, or itchy.

The principal trailheads are Bear Valley, Palomarin, Five Brooks, and Estero. All have adequate parking. You may get excellent trail maps at any visitor center. Here are some

trail distances from Bear Valley trailhead:

kilometers miles Coast Camp 13.2 8.2 Divide Meadow 2.6 1.6 Double Point Glen Camp 7.7 4.8 Palomarin 19.0 11.8 Sky Camp 4.0 2.5 Wildcat Camp 10.3 6.4

PLEASE - Some residents and ranchers have retained rights of use and occupancy. Please respect their rights of property and privacy.

Stables |

Dog on Leash

Swimming ₩ Picnic Area



Sea Lion Overlook

Don't overlook sea lions on rocks and beaches be-low. Good place to watch