ACTIVITIES IN THE HALEAKALA CRATER AREA

Like a slender, white veil, Waimoku Falls tumbles down from high above the forest.

Backpackers hike down into the crater on Halemauu Trail for a few days of camping.

For Your Safety

Drive Carefully. *Park roads were designed for slow-moving vehicles. Please stop at overlooks; don't try to see everything from behind the wheel. Roads are often narrow; pull over and stop when buses approach on narrow portions of road. Proceed slowly in wide vehicles.*

Watch Your Children. *You cannot protect a child who is beyond your protective reach and warning voice.*

Dress Properly for Altitude and Activity. *Weather is unpredictable, and at high elevations it can be cold.*

Report all accidents to park officials.

Hikers, Don't Travel Alone. A companion may save your life in an emergency. Stand quietly at the side of the trail when meeting horses.

Where to Find Information

Park headquarters is 1.5 kilometers (1 mile) from the entrance to the park. Here park personnel furnish general information, permits, and publications.

Haleakala visitor center, about 17.5 kilometers (11 miles) from the park entrance, is near the summit of Mt. Haleakala. Besides a magnificent view of the crater, there are exhibits explaining the geology, archeology, and ecology of the park as well as the wilderness protection programs. Periodically during the day, a park ranger is on duty to answer specific questions and to give interpretive talks.

Overlooks with orientation panels and exhibits are located at Leleiwi, Kalahaku, and Puu Ulaula along the park road between park headquarters and the summit. The rare silversword plant can be seen at Kalahaku, and if cloud conditions are right, the "Specter of the Brocken" can be seen at Leleiwi.

How to Enjoy the Park

Many opportunities for walking and hiking await you in the crater area—and they range from short self-guiding walks to overnight hikes of several days. Here are some of the possibilities.

Short walks (self-guiding)

For views of Keanae Valley and Koolau Gap, take the *Halemauu Trail* for about 1.6 kilometers (1 mile) from the highway to the crater rim.

Walk along *Hosmer Grove Nature Trail,* where for 0.4 kilometer (¼ mile) with the aid of a brochure you can learn of the interplay between native and exotic plants and animals.

Hike down *Sliding Sands Trail,* but be careful not to travel too far. The return climb can be exhausting at this altitude.

Climb to the top of *White Hill,* about 0.4 kilometer (¼ mile) from the visitor center.

Camping and picnicking

Hosmer Grove Campground has tables, fireplaces, a cooking shelter with barbecue grills, drinking water, and chemical toilets. Camping here is limited to 25 persons; organized groups are limited to 15 persons.

One-day hiking trips through the crater

Down *Halemauu Trail* to Holua Cabin and return, a 13-kilometer (8-mile), ½-day trip.

Down *Sliding Sands Trail* and return via Halemauu Trail. This is a 19-kilometer (12-mile), 8-hour trip recommended for good hikers only.

Ranger-guided walks and hikes

Crater rim walks are conducted during the summer months. These vary in length from short ½-hour to 2-hour walks covering about 3 kilometers (2 miles). Check at park headquarters for current schedules.

Concessionaire-guided trips through the crater

Horseback and hiking concessionaires sponsor their own trips through the crater—on a one-day or overnight basis. Write to Superintendent at the address shown at right.

Hikers Take Note:

The crater is an area where natural forces predominate. Be prepared for unpredictable changes in weather. The crater can be very hot and sunny, or very cold and rainy—often during the same day. Visitors should bring comfortable, durable hiking shoes, canteen, light raincoat, sun hat, and suntan lotion.

OVERNIGHT CAMPING IN HALEAKALA CRATER BACK COUNTRY

Camping in the crater, which is by permit only and restricted to cabins and campgrounds, is limited to 2 nights at any one location and 3 nights maximum per month.

The Haleakala back country is a fragile wilderness area accessible by trail only, and campers and hikers can disrupt the balance of nature here by careless use. Early Hawaiians established "kapus" or taboos to control undesirable activities. Please do your part to preserve the wilderness values for future visitors by observing these kapus:

- Do not walk off the trails; doing so can cause damaging erosion.
- Do not build wood fires; living and dead plant material contribute to the natural cycle of nutrients. Leave them in place.
- Pack out all trash. Leave the area as natural as you would like to find it.
- Do not take pets into the back country; there are several endangered species that would be disturbed.

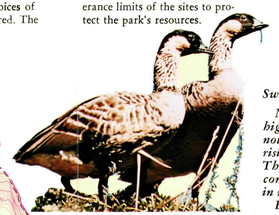
There are two *crater campgrounds*—one near Holua cabin and the other near Paliku cabin. These are primitive campsites with only pit toilets and drinking water. Campers should have equipment appropriate for possible cold, wet weather, and must bring sleeping bag, tent, and cooking stove with fuel (because of the prohibition against open fires). Obtain a camping permit at park headquarters or from a park ranger. Camping is limited to 25 persons per campground.

Three *crater cabins* are maintained by the National Park Service for visitor use on an advance reservation basis only. Each cabin is allocated to one party as a unit, with a capacity of 12 people per night; at least one member of the group must be 18 years of age or older.

Equipment. Each cabin has bunks, blankets, limited water and firewood, cookstove, and eating and cooking utensils.

Reservations. To reserve cabins, write to the park superintendant at least 60 days in advance of your trip. Include your first and alternate choices of date and cabin preferred. The less restrictive your choice, the better your chance of confirmation. Reservations limited to 3 nights per month, with no more than 2 consecutive nights at any one cabin. A fee is charged.

Please observe the capacity limits for cabins and campgrounds. These rationing procedures have been put into effect after careful assessment of visitor preferences and physical tolerance limits of the sites to protect the park's resources.



The nene, or native Hawaiian goose, is the State bird.

Swimmers Take Note:

Never swim during high water. If you notice the water level rising, GET OUT FAST. *This stream can become a raging torrent in minutes.*

Be careful on wet rocks; they are slippery. Several visitors have slipped in during high waters. Some have drowned.

Check before diving or jumping. In some places there are submerged ledges near the pool's edge.

Administration

Haleakala National Park is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is Box 537, Makawao, Maui, HI 96768, is in immediate charge.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

The Legend of Maui

Hina, mother of the demigod Maui, had trouble drying her bark cloth because the day was too short. So Maui went to the great mountain that the sun passed over each day and, as the sun's rays crept over the mountain, snared them and held them fast with his ropes. "Give me my life," pleaded the sun. "I will give you your life," said Maui, "if you promise to go more slowly across the sky." And to this day, the sun is careful to go slowly across the heavens; and the great mountain is known as Haleakala (Holly-ah-ka-lah), the House of the Sun.

IN THE KIPAHULU AREA

Where to Find Information

Call park headquarters or contact park personnel, on duty year around, in the Kipahulu coastal area.

How to Enjoy the Park

Walks and hikes of a different nature are found along Oheo Gulch, and hiking and camping here can be a rewarding experience. Here are some of the things you can see and do:

Short walks (self-guiding)

Makahiku Falls can be reached from the central parking area by following the pasture trail leading up the left side of Oheo Gulch for 0.8 kilometer (0.5 mile) to the overlook.

The *Waimoku Falls Trail* continues on for another 2.4 kilometers (1.5 miles) from the Makahiku Falls overlook up the pasture trail and through a bamboo forest to the base of this scenic waterfall. DO NOT ATTEMPT THIS HIKE WHEN STREAMS ARE SWOLLEN.

Hawaiian Planting Area, a recreated historical Hawaiian farm, is 0.8 kilometer (0.5 mile) from the highway bridge up the right side of Oheo Gulch.

Ranger-guided walks

A variety of walks and hikes are provided during the summer months. Check with the Hana office or the Kipahulu rangers for current activities.

Camping and Picnicking

Please camp only in the designated camping area. *Oheo Campground,* near the ocean, is more primitive than the crater campgrounds. There are a few tables and grills, chemical toilets, but NO DRINKING WATER. A permit is not required here, but there is a 3-night limit per month. Pets are allowed on a leash. Check with ranger for picnicking sites. Please leave the area as you would like to find it.

Swimming

Swimming in the several pools along Oheo Gulch is a popular pastime though the water is usually quite cool.

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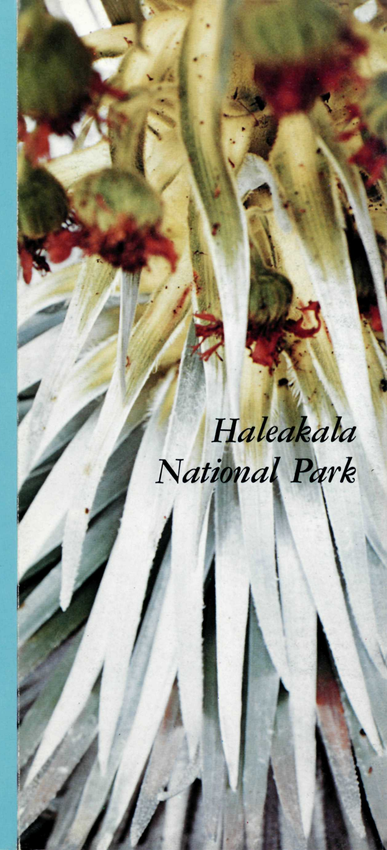
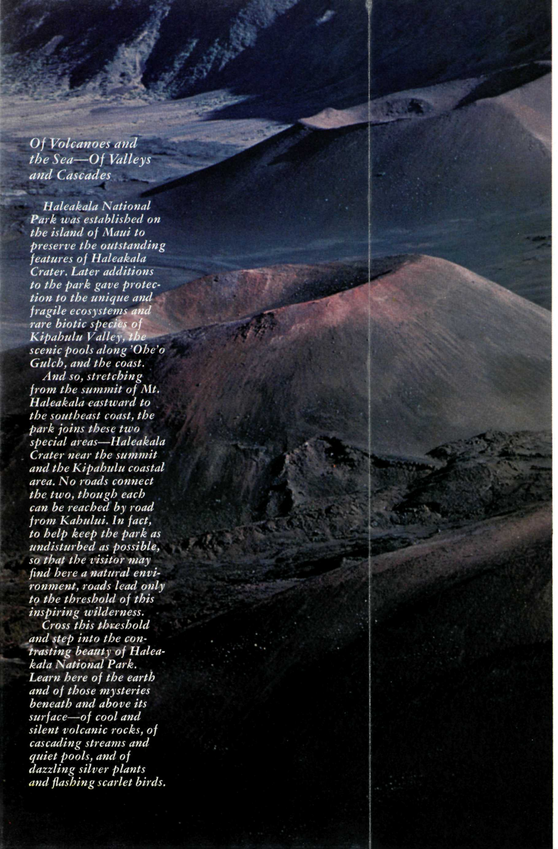


Haleakala National Park



Of Volcanoes and the Sea—Of Valleys and Cascades

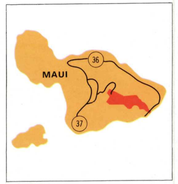
Haleakala National Park was established on the island of Maui to preserve the outstanding features of Haleakala Crater. Later additions to the park gave protection to the unique and fragile ecosystems and rare biotic species of Kipahulu Valley, the scenic pools along 'Ohe'o Gulch, and the coast.

And so, stretching from the summit of Mt. Haleakala eastward to the southeast coast, the park joins these two special areas—Haleakala Crater near the summit and the Kipahulu coastal area. No roads connect the two, though each can be reached by road from Kahului. In fact, to help keep the park as undisturbed as possible, so that the visitor may find here a natural environment, roads lead only to the threshold of this inspiring wilderness.

Cross this threshold and step into the contrasting beauty of Haleakala National Park. Learn here of the earth and of those mysteries beneath and above its surface—of cool and silent volcanic rocks, of cascading streams and quiet pools, and of dazzling silver plants and flashing scarlet birds.

HALEAKALA CRATER—The Geologic Story

Haleakala Crater is now a cool, cone-studded reminder of a once-active volcano. Streaks of red, yellow, gray, and black trace the courses of recent and ancient lava, ash, and cinder flows. The volcanic rocks slowly break down as natural forces



reduce them to minute particles which are swept away by wind, heavy rain, and intermittent streams.

A fiery birth beneath the sea

Modern geology indicates that the Hawaiian Islands are situated near the middle of the "Pacific Plate," one of a dozen thin, rigid structures covering our planet like the cracked shell of an egg. Though adjoining each other, these plates are in constant slow motion, the Pacific Plate moving northwestward several centimeters per year. Scattered around the world are many weak areas in the earth's crust where magma slowly wells upward to the surface as a "plume." Here volcanoes and volcanic islands, such as Maui, are born.

This constant northwestward movement of the Pacific Plate over a local volcanic "hot spot," or plume, has produced a series of islands one after another in assembly line fashion. The result is a chain of volcanic islands stretching from the island of Hawai'i along a southeast-northwest line for 4,050 kilometers (2,500 miles) toward Japan.

Mountains above the sea

Maui, one of the younger islands in this chain, began as two separate volcanoes on the ocean floor; time and again, eon after eon, they erupted, and thin new sheets of lava spread upon the old, building and

building, until the volcano heads emerged from the sea. Lava, wind-blown ash, and alluvium eventually joined the two by an isthmus or valley, forming Maui, "The Valley Isle." Finally, Haleakala, the larger eastern volcano, reached its greatest height, 3,600 meters (12,000 feet) above the ocean—some 9,100 meters (30,000 feet) from its base on the ocean floor.

Waters upon the mountain

For a time, volcanic activity ceased, and erosion dominated. The great mountain was high enough to trap the moisture-laden northeast tradewinds. Rain fell and streams began to cut channels down its slopes. Two such streams eroding their way headward created large amphitheater-like depressions near the summit.

Ultimately these two valleys met, creating a long erosional "crater." At the same time a series of ice age submergences and emergences of the shoreline occurred; the final submergence formed the four islands of Lanai, Molokai, Kahoolawe, and Maui.

Lava down the valleys

When volcanic activity resumed near the summit, lava poured down the stream valleys, nearly filling them. More recently, cinders, ash, volcanic bombs, and spatter were blown from the numerous young vents in the "crater" forming multi-colored symmetrical cones as high as 180 meters (600 feet).

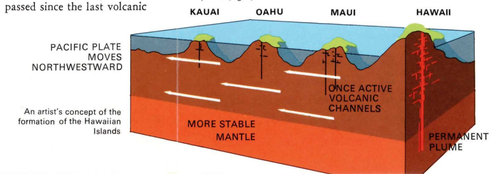
Thus this water-carved basin became partially filled with lava and cinder cones, and it came to resemble a true volcanic crater.

Stillness within the volcano

Several hundred years have passed since the last volcanic activity occurred within the crater. This stillness in Maui is attributed by modern geology to the constant northwestward movement of the Pacific Plate. As the oldest islands on the northwest end of the chain have moved farther away from the plume—the source of new lava—they have ceased to grow; the ravages of wind and rain and time have thus been able to reduce them to sandbars and atolls.

Maui has shifted a few kilometers from the plume's influence, and Haleakala, too, is destined to become extinct. Though dormant now, about 1790, which is quite recent in geologic time, two minor flows at lower elevations along the southwest rift zone of Haleakala reached the sea and altered the southwest coastline of Maui. Today, earthquake records indicate that internal adjustments are still taking place in the earth's crust, but at present, no volcanic activity of any form is visible in the crater nor at any other place on the island of Maui. Perhaps Haleakala could erupt again; we just don't know.

Though Maui is no longer growing, the youngest island in the chain, Hawai'i, is enlarging. And as plate drift continues, it is even probable that in the distant future, a new volcanic island will appear to the southeast of Hawai'i, the Big Island.



An artist's concept of the formation of the Hawaiian Islands

Enrich your visit to the park by becoming aware of the many unusual and contrasting colors here. Note the pink and gray cinder cones dotting the crater floor (far left) and the vivid green ferns growing near the summit

along Halemauu Trail (left). Not so easy to spot among the leaves is the red 'i'iwi (above, top), whose long curving bill reaches deep for nectar. At the far southeast corner of the park, near Kipahulu, the bright blue waters of the 'Ohe'o Pools (above) sparkle in the sunshine, and spray from Waimoko Falls constantly bathes these fern-like plants (right).

LIFE STORY

The Hawaiian Islands, thousands of kilometers from a continental land mass, support a complex system of plants and animals. More than 90 percent of the native species are found only on these islands. What events took place to create this assemblage of life so severely restricted in range?

A tiny seed caught among a bird's feathers, fern spores borne aloft by strong winds, and insects cast ashore with floating vegetation are means by which life can cross an ocean. For every one that successfully survived the trip, thousands, perhaps millions, failed. But time was not a critical factor, and thus over millions of years several hundred of the hardier life forms established populations on the new islands.

Time and extreme isolation were essential for the development of Hawai'i's unique native life. Isolated from the remainder of its kind and living in a strange environment, a small breeding population is especially subject to evolutionary development. In some instances, changes have been so pronounced that it is difficult, if not impossible, to trace ancestries to continental forms.

On the other hand, all mammals—except for a small brown bat and monk seal—arrived on these islands through man's intentional or accidental aid. Being unnatural, their presence has greatly upset the natural balance here. Wild pigs, initially brought by early Hawaiians, root today through the wet areas of the park. Goats, introduced by Europeans, browse throughout the crater. These two exotics are the most serious threat to the native plant and animal populations. But other introduced species inhabit the park such as the predatory mongoose, released in sugar cane fields to control rats and mice (also introduced). All of these exotics continue to threaten the natural relationship which would have evolved between organisms and their environment in the absence of interference by modern man. Thus, the Park Service has embarked on an exotic plant and animal control program aimed at perpetuating the values for which Haleakala National Park was established.

Hawai'i is noted for its unique birdlife, and many species are found nowhere else. The golden plover commonly seen from September to May is famous for its migratory flights to and from Alaska. You may also see the 'apapane, 'i'iwi, 'amakihi, and nene which are among those birds native only to the Hawaiian Islands. The 'i'iwi is one of the most beautiful of all Hawaiian birds, with a bright scarlet body, black wings and tail, and inch-long curved bill. The 'apapane is also scarlet, but has a white belly and black legs and bill. The bright green and yellow 'amakihi is known for the speed at which it searches for nectar and insects. However, most of the birds you will see along park roads—pheasants, chukars, skylarks, mockingbirds—are introduced forms. These, too, have taken their toll of native birdlife—as the carriers of bird diseases and competitors for territory and food.

Strangely enough, the silversword dies after blooming only once. After growing for some 5 to 20 years, this spectacular plant with its many dagger-like silvery leaves (bottom left), develops a cluster of 100 to 500 yellow and reddish-purple flower heads (top left and cover). The flower stalk, which begins to develop in May or June, reaches a height of about 1 to 2.5 meters (3 to 8 feet) in July or August. Each flower produces hundreds of seeds, and as the seeds develop, the remainder of the plant slowly dies. By late autumn, only a dry, decaying skeleton remains.

The silversword, called ahinahina or "gray-gray" by the Hawaiians, is a member of the sunflower family. It probably descended from ancestors whose seed was carried by air currents across the Pacific from the Americas.

You can see silverswords most easily along the park road at the Kalahuku Overlook's Silversword Enclosure. The more venturesome visitors will find fine groups in various stages of growth on the Silversword Loop Trail within the crater.

KIPAHULU

In contrast to the red and yellow, gray and black lava ash and cinder cones of Haleakala Crater are the lush greenness and abundant waters of the Kipahulu section of the park. Here the visitor is greeted by a chain of usually placid sparkling pools, some large, some small, and each connected by a waterfall or short cascade. But 'Ohe'o, the stream joining the pools, has many moods, and at times becomes a thundering torrent of white water burying these quiet pools as it churns and plunges headlong toward the ocean. The upper rain forest above the pools receives up to 635 centimeters (250 inches) of rainfall a year and flash floods can and do occur here.

A pastoral scene of rolling grasslands and forested valleys surrounds the pools. Ginger and ti form an understory in forests of kukui, mango, guava, and bamboo, while beach naupaka, false kamani, and pandanus abound along the rugged coastal cliffs. Pictographs, painted by long-forgotten artists, and farm plots once flourishing with cultivated taro and sweet potatoes, remind us of an age when the ali'i—Hawaiian chiefs—ruled this land.

In the higher elevations, a vast native koa and 'ohi'a rain forest thrives, just as it has for thousands of years, still relatively undisturbed by the influences of man. It is here that the endangered Maui nukupu'u, Maui parrotbill, and other native birds still survive in a delicately balanced environment. Protection of this ecosystem will help preserve some of this rare birdlife.

WHEN TO VISIT THE PARK

Weather near the summit varies considerably; summers are generally dry and moderately warm, but you should come prepared for occasional cold, windy, damp weather. Winters tend to be cold, wet, foggy, and windy. Generally in the spring and fall there is a mixture of all kinds of weather. Call the park at 572-7749 for current weather conditions before beginning your trip to the park.

Conditions for viewing scenery change during the day. At sunrise the light is poor, but the crater is usually free of clouds to midmorning and again in late afternoon and evening. Photographic lighting is usually best in the afternoon. Cloudy conditions often prevail during midday, but frequently improve for short periods, permitting at least partial views of the crater. Evening visits to the crater rim, especially sunsets, can be spectacular.

Weather along the Kipahulu coast is subtropical. Light showers can occur any day, but are usually followed by sunshine.

HOW TO REACH THE PARK

Haleakala National Park extends from the 3,055-meter (10,023-foot) summit of Mt. Haleakala down the southeast flank to the Kipahulu coast near Hana. These two sections of the park are not directly connected by road, but each can be reached by automobile from Kahului, as follows:

Haleakala Crater is a 3-hour round trip drive from Kahului via Hawaii 37, 377, and 378.

The Kipahulu District of the park is a 6- to 8-hour round trip drive from Kahului via Hawaii 36 to Hana, then via Hawaii 31 toward Kipahulu. The road around East Maui, which is narrow and winding and slow, is for the adventurous only; it offers roadside parks, frequent overlooks, and views of rain forests, black lava shores, and rugged coastal cliffs. West of Kipahulu, Hawaii 31 becomes an unpaved road.

SERVICES AND FACILITIES

There are no overnight motel accommodations, food services, stores, or service stations within the park, but these facilities can be reached by car in about 30 to 45 minutes:

Distance from park entrance *(Haleakala Crater)*	Distance from Kipahulu *('Ohe'o Pools)*
Restaurant & Lodge	
19 km (12 mi) on Rt. 377	16 km (10 mi) on Rt. 31 to Hana
Service Station	
29 km (18 mi) on Rt. 37	Same as above

National Park Service
U.S. DEPARTMENT OF THE INTERIOR