The Epic of the San Agustin

The next time you are out at the lighthouse watching the sea lions navigate so fluidly around the wave-dashed rocks of the headlands, close your eyes and see if you can picture the peril of the early sailors who had no light or fog horn to warn them. For the earliest of these sailors, the uncharted Pacific shore held hidden reefs, treacherous tides, and the constant possibility of ship wreck. When you consider the cargo they carried and the ordeal they went through to obtain it, you too might have asked yourself if the risks of coming ashore on a wild coast would have been worth it. For these sailors sailed in the name of the Spanish Crown and in the holds of their galleons rested the exotic wealth of the Orient.

Trade with the East Indies did not come easy. The journey began in the port of Acapulco, Mexico, where ships laden with silver and gold would set sail on a 3 month, 8,700 mile journey across the open water of the Pacific to the Spanish port of Manila, in the Philippine Islands. Loaded with silk, porcelain, spices and other exotic cargo these Manila Galleons would start the treacherous 5 month return voyage. Even after being at sea for months with no fresh food or water, ships did not range close to shore until they returned to the safety of the Acapulco port.

It was not until the epic circumnavigation of the globe by Englishman Sir Francis Drake in 1578, that the Spanish Crown found a greater fear lurking in the Pacific waters than the hidden reefs and rocky coastline. With antagonism rising between the rival maritime powers, there was suddenly an urgent need for safe Spanish ports of call up and down the length of the California coastline. However, in an age where news and orders travelled only as fast as the means to carry them, it was sixteen years after Drake returned to England that action would be taken.

The job of exploration and discovery fell to a Portuguese captain, Sebastian Rodriguez Cermeno. An experienced captain with numerous voyages on the Manila route, Cermeno was granted a King’s commission by the Viceroy of Mexico, Luis de Valesco, to explore and claim all lands in the name of the Spanish Crown. Into his trust was given the ship the San Agustin. Leaving Manila in early July, the San Agustin held a 130 ton cargo of silks, beeswax, clothing and the distinctive blue, Chinese porcelain that was then the current flavor in Europe.

Arriving on the Northern California coast in November of 1595, Cermeno carefully sailed south, keeping to the (Continued on page 2)
Landscape Preservation at Point Reyes

Landscape preservation activities focus on both the past and the future. We must know what from the past is important and significant, and we must have a vision of our future. The first part of this equation implies that there is something from the past that we value and wish to sustain. Human values that underlie the fabric of our society are, by their very nature, elements of our past. That is when they were formed in the fire of cultural evolution, and that is when they were put to the test and found to be full of worth. The features on the landscape that reflect these human values are important and are what we want to preserve. Unfortunately, they easily are lost.

Human nature points us to the future. The imperatives of today drive us forward. In the words of a famous cultural geographer, the past tends to take on the look of a foreign country. After all, we only have so much energy, and not much to spare for backward glances. But this is something we must do. We must know from where we came so we may, with some feeling of confidence, carry forward those values and landscape creations we have found to be worthwhile. This is the essence of historic preservation.

What are our worthy creations? Some we know about and are very clearly before us: the Golden Gate Bridge, Central Park, the Plaza in the city of Santa Fe. But some are before us and not so clear; they are so familiar their worth is subconscious: the pasture next to the old cabin with the horse looking over the fence as we drive past on Route 1, the hundred year old picket-fence marching up and over the hill toward Bolinas Ridge, the lonely stand of Cypress trees marking the site of a long-gone 19th century dairy ranch. These creations which are less than clearly before us are the kinds of things that are lost easily over time.

A famous landscape architect wrote: "Every place contains locally special attributes which produce a spirit of place, and a sense of belonging and well-being among a place/people". The ingredients that produce these attributes are based on aspects of the natural environment, such as topography, climate, and the presence of water; and on cultural expressions, such as architecture, land-use, and cultural traditions. The holism of the interaction of these ingredients often is not understood by the local population until the ingredients are lost; they are vulnerable to unplanned change. The basic purpose of landscape preservation is not to arrest time, but to control these forces of change.

One of the principle duties of the National Park Service staff at Point Reyes is to ask the question: What next? Where does the course of action we have charted take us; and are we bringing with us those valued creations from our past that convey significance to people and communities. The conflict between "progress" (our drive into the future) and the costs we must pay for the quality of life we want to maintain on the local and national level is what makes this so difficult. Few of us want to progress forward without some of those tangible landscape features which lead to us our sense of place and our spirit of community.

The historic landscapes of Point Reyes National Seashore are beautiful and meaningful. We are working hard to understand what makes them special, and to preserve them for the future.

For millennia coho salmon (Onchorhyncus kisutch) have migrated up the streams of coastal Marin County to spawn and die, thereby creating a new generation to continue this timeless, never ending cycle. But is it timeless?

The ceaseless activities of man, the changing face of the land, and loss of many habitat areas critical to the coho has decimated their once abundant numbers. In fact, coho salmon are no longer present in several of the coastal Marin streams in which they were historically found.

In December 1996, the National Marine Fisheries Service listed the coho salmon populations in Central California as threatened. In response to this listing, the National Park Service has initiated a five year project to identify, evaluate, restore and enhance coho salmon populations and their habitat within Golden Gate National Recreation Area, Muir Woods National Monument, and Point Reyes National Seashore. More specifically, Pine Gulch, Redwood, Olema, and Lagunitas Creeks, as well as their associated tributaries, have been identified as the primary focus of the Coho Restoration Project.

The Coho Restoration Project consists of several components, one of which includes a stream habitat assessment where teams of biologists, hydrologists, and volunteers will collect and evaluate stream habitat information and develop management plans to insure healthy and functional stream ecosystems. In addition to the habitat assessment, field crews will be involved in evaluating the present distribution and abundance of coho salmon populations within the Project streams.

The scope of the Coho Restoration Project is immense and requires the participation of a large number of highly trained and dedicated volunteers in order to accomplish all the identified objectives. To this end, we are in the process of developing the Volunteer Stream Assessment Program (VSAP). Volunteers involved in the VSAP will participate in a comprehensive training program that will provide them with the skills and knowledge they will need to assist Project staff in conducting stream habitat surveys and fish population assessments.

For more information or to get involved please contact Ron Smith at (415) 868-0732.
New Park Fees

Backcountry camping at Point Reyes has long been a special experience. Close to a major metropolitan area yet miles away from the stress of urban life. With just a short drive and an easy hike, your tent can be set up for a night under the stars listening to the crunching surf. Our 4 campgrounds provide many people with the opportunity to experience the wilderness in their own backyard. However, the cost of providing this experience to the public continues to rise; costs such as collecting trash, maintaining trails, staffing visitor centers and repairing worn or vandalized facilities.

In an effort to deal with rising operational costs of the National Park Service, Bureau of Land Management, and the U.S. Fish & Wildlife Service, Congress has approved a bipartisan bill for a pilot, 3 year, fee collection program. The purpose is to augment an area's operating budget in a manner which spreads costs among those who use the services. Under this fee demonstration program, selected parks will be allowed to keep 80% of all new fees collected, with the remaining 20% deposited in an account for use in non-fee park units. Point Reyes has been selected to participate in this program for our backcountry campgrounds.

As part of this program, on July 1, 1997, we began charging fees to camp. Fees are $10 per night for sites of up to 8 people, and $30 per night for group sites accommodating 9 to 25 people. A credit card will be necessary when booking your reservation. Camping fees are non-refundable. With the coming of fees, it will no longer be necessary to call in the day before to confirm a reservation or to call and hold your spot if you will not be arriving before the day's check-in time. Once you pay, the site is yours and you will simply have to pick up your permit from the visitor center at your leisure before starting your trip.

As an immediate benefit of the fee program, we will increase our phone reservation hours and add a separate phone line for camping information and reservations. This will greatly relieve the congestion on our regular Bear Valley Visitor Center phone line for people requesting other types of services or information.

The new hours for campground reservations will be Monday through Friday, 9:00 am to 2:00 pm, at (415) 663-8054. Since Congress will be evaluating this fee demonstration project at the end of 3 years, your feedback and suggestions are welcomed.

Field Seminars

Join us amidst the incredible surroundings of Point Reyes as we discover and experience the dynamic natural world through workshops and seminars in natural history, photography, environmental education, and the arts. Below is a sampling of classes. To receive a complete listing, call (415) 663-1200.

JOURNAL SKETCHING
THE SPIRIT OF SILENT PLACES
October 4-5
9 am - 4 pm each day
Donna DeLaBriandais
Fee: $105 (includes accommodations)
Writing, sketching, painting—by combining these creative elements in the field, we will learn how to record thoughts, insights and natural sightings, bringing new awareness of the world around us and our connections within. Our creative journey will calm the soul, promote inner growth, and develop new artistic skills. The weekend will give us an introduction to the tools needed to create our own artist's sketchbook journal, which can be used as a daily record or a method to record travels and outings. By translating the world around us in an artistic and personal way, we will create a unique narrative of our journey in the natural world. All levels of experience welcome.

RAPMORTS — MONARCHS OF THE SKY
October 4-5
9 am - 4 pm each day
Diane Williams
Fee: $76
Fall is an incredible time to observe hawks, falcons, and other raptors as they soar effortlessly above, many on their journey south for the winter months. These birds have long aroused our wonder and admiration due to their spectacular hunting techniques, beauty, and skill in flight. This weekend will combine slides and study of the habits and ecology of these splendid birds with travel to various field locations and a special opportunity to observe them in their southern migration high atop "Hawk Mountain" in the Marin Headlands.

CREATIVE FLASH PHOTOGRAPHY
NEW LIGHT FOR NATURE PHOTOGRAPHERS
October 10 (Evening)-12
7 pm Friday - 4 pm Sunday
Michael Frye
Fee: $140 (includes accommodations)
Flash is a powerful tool that can add a new dimension to your photography. With flash, you can create the light you want, rather than having to wait for nature to deliver it. And flash brings you into a new creative and artistic realm by allowing you to achieve many unusual and striking effects that can't be produced any other way. Join Michael Frye as he guides you through the basics of flash exposure, before progressing to creative uses of flash, such as flash-blurs, using gel filters, and nighttime landscapes lit with flash. The weekend will combine slide lectures and discussion with field work, including a Saturday night session under a nearly full moon (weather permitting).

AVIAN PHOTOGRAPHY
Saturday, October 18
9 am-4 pm
Philip Loring Greene
Fee: $55
The fall migration of shorebirds provides an excellent opportunity to explore the world of avian photography. This special Saturday, combining slides, discussion and field practice, will show you how to translate what you visualize in the lens into the final print. Come learn specific techniques from a man who has spent 20 years studying, researching and photographing birds in their natural habitats—in the water, on the ground and in the air.

JAPANESE PRINTMAKING
October 18-19
9 am Saturday - 4 pm Sunday
Katherine McKay
Fee: $115 (includes materials fee & accommodations)
Japanese printmaking was derived from Chinese woodblock printing introduced into Japan in the 7th century. During this hands-on weekend, we will learn the basics of printing as practiced by the Japanese masters. A simple and non-toxic method of printing from woodblocks and found objects, this process can be done at home using watercolor without expensive presses. Plain and textured blocks can be combined with carved blocks and found objects to produce endless variations.

Winter Shuttles

Beginning this fall, Point Reyes National Seashore will be offering expanded bus services from Drakes Beach to the Point Reyes Lighthouse and Chimney Rock area during the peaks of the whale migration and elephant seal breeding season.

Visitation is extremely heavy this time of year on the weekends and the park is trying to alleviate the traffic congestion which will allow park visitors to better enjoy their visit to the park.

In years past, 12-passenger shuttle vans were offered to transport visitors to these very popular destinations on weekends and holidays from December through March. In February of 1997, we offered an experimental shuttle in which park staff contracted with a local charter company for 2 47-passenger buses and a 24-passenger shuttle.

Where we typically transport 100 visitors on a weekend day with our smaller shuttle vans, with the larger buses, we moved over 900 visitors and there was never more than a 15 minute wait!
Naturalist Activities

- **Monday, September 1**: 1:00pm Kule Loklo Walk
- **Saturday, September 6**: 7:00pm Evening Lighthouse Tour
- **Sunday, September 7**: 10:00am Kule Loklo Workday
- **Saturday, September 13**: 7:00pm Evening Lighthouse Tour
- **Sunday, September 14**: 9:00am Habitat Restoration Proj.
- **Saturday, September 20**: 9:30am Coastal Clean-up
- **Sunday, September 21**: 1:00pm Kule Loklo Walk
- **Saturday, September 27**: 9:00am Birds of Fivebrooks
- **Sunday, September 28**: 10:00am Hike to Divide Meadow
- **Saturday, October 4**: 2:00pm Take a Break at Drake
- **Sunday, October 5**: 10:00am Kule Loklo Workday
- **Saturday, October 11**: 10:00am Hike to Divide Meadow
- **Sunday, October 12**: 1:00pm Kule Loklo Walk
- **Monday, October 13**: 11:00am Tomales Point Hike
- **Saturday, October 18**: 11:00am-Abbotts Lagoon Hike
- **Sunday, October 19**: 11:00am Tomales Point Hike
- **Saturday, October 25**: 10:00am Hike to Mt. Wittenberg
- **Sunday, October 26**: 9:00am Habitat Restoration Proj.
- **Saturday, November 1**: 9:00am Birds of Limantour Estero
- **Sunday, November 2**: 10:00am Kule Loklo Workday
- **Saturday, November 8**: 11:00am Tomales Point Hike
- **Sunday, November 9**: 1:00pm Kule Loklo Walk
- **Saturday, November 15**: 9:00am Birds of Fivebrooks
- **Sunday, November 16**: 11:00am Tomales Point Hike
- **Saturday, November 22**: 10:00am Hike to Divide Meadow
- **Sunday, November 23**: 1:00pm Kule Loklo Walk
- **Saturday, November 29**: 10:30am Fish Tales
- **Sunday, November 30**: 9:00am Habitat Restoration Proj.

**Exhibits**

**Kule Loklo**
This Coast Miwok Cultural Exhibit is a replica of a typical Native American village of this area and provides a glimpse of life in California before European contact. It is an easy 1/2 mile walk from the Bear Valley Visitor Center. Exhibits along the trail provide insight into the Coast Miwok culture. Open every day, sunrise to sunset.

Phone: (415) 663-1092

**Earthquake Trail**
Located in the Bear Valley Visitor Center picnic area, this short loop trail follows the fracture zone of the San Andreas Fault. It features exhibits of the 1906 San Francisco earthquake and presents theories about earthquakes and geologic processes. This paved trail is wheelchair accessible. Open every day, sunrise to sunset.

Phone: (415) 663-1092

**Morgan Horse Ranch**
A working ranch in Bear Valley for horses used by National Park Rangers in wilderness areas and for backcountry patrol. The Morgan horse is the first American breed of horse. Self-guided exhibits, corrals and demonstrations are a part of the ongoing interpretive program of the ranch. Open every day, 9:00 am to 4:30 pm.

Phone: (415) 663-1763

**Pierce Point Ranch**
Established in 1858, the renovated Pierce Ranch is one of the oldest and most successful dairy ranches of its time on the Point Reyes Peninsula. It is representative of the agricultural heritage of this area. A short, self-guided trail guides visitors through the historic complex. Open every day, sunrise to sunset.

Phone: (415) 669-1534

**Gray Whale Migration**
Each year, starting in December, the gray whales begin to pass by the Point Reyes Headlands on their annual 10,000 mile journey from the cold arctic waters to the warm breeding and calving lagoons off Baja California. The best viewing from land in this area takes place at the Point Reyes Lighthouse. A free shuttle bus service runs on weekends from Drakes Beach to the Lighthouse parking lot to ease the congestion of traffic and parking on this narrow spit of land.

**Holiday Closures**
All seashore Visitor Centers will be closed on Thursday, December 25th.

**Become an elephant seal docent!**
An opportunity to protect wildlife and teach the public about these magnificent creatures. Call (415) 669-7340 to register for the training on October 25-26.
Descriptions of Activities

Abbotts Lagoon Hike Learn about the natural history of this beautiful area on this easy, three mile round trip hike. Bring binoculars, warm clothing and drinking water. Meet at Abbotts Lagoon parking lot. 2 hours.

Birds of Fivebrooks Pond A gentle 1/2 mile loop offers a unique opportunity to see secretive waterfowl and forest-dwelling songbirds. Bring binoculars and field guide. Meet at Fivebrooks Trailhead. 1 hour.

Birds of Limantour Estero Explore the wetland of Limantour, a haven for migratory shorebirds and waterfowl. Bring binoculars and field guide. Meet at Limantour Beach parking lot. 1 hour.

Dairy Days Point Reyes was renowned for its dairy ranches in the 1800s. The park would like to share this wonderful history in a day filled with activities celebrating the ranches of the peninsula. Events include a butter-making demonstration, riding demonstration, horse grooming, a horse parade, 4-H club farm animals, and turn-of-the-century games for children. 11:00am - 4:00pm at the Morgan Horse Ranch complex.

Evening Lighthouse Tour Experience the Point Reyes Lighthouse as many keepers have over the years. Dress warm and bring a flashlight for a dusk lighting of the giant crystal lens. Limited space available on this popular program. Call (415) 669-1534 after 10:00 am the day of the tour for reservations. 1 hour.

Fish Tales Coho salmon and steelhead trout in central California are listed by US Fish and Wildlife as threatened species. Learn about the life cycle of these incredible fish and the park's effort to restore their habitat. 20 minutes at the Bear Valley Visitor Center.

Habitat Restoration Project An exciting opportunity to join our restoration team. Become an active land steward by removing invasive non-native plants which threaten native ecosystems. Meet at the Bear Valley Visitor Center parking lot. Wear clothes that can get dirty and bring work gloves, drinking water and a bag lunch. Call (415) 663-1092 x432 for details. 4 hours.

Hike to Divide Meadow This easy walk along the Bar Valley trail to Divide Meadow is a good introduction to the Point Reyes area. Meet at the Bear Valley Visitor Center for a pleasant walk along stream, meadow, and forest. 1 to 2 hours.

Hike to Mt. Wittenberg This guided hike up the north side of Mt. Wittenberg will provide a unique opportunity to see the wonders of the coastal forest. Dress warmly for a mildly strenuous hike. Meet at the Sky Trailhead parking lot on Limantour Road. 3 hours.

Kule Loklo Walk Learn about traditional uses of plants of the Coast Miwok people while enjoying a leisurely 1/2 mile walk to a re-created Native American village. Meet at the Bear Valley Visitor Center. 1 hour.

Kule Loklo Workday You are invited to join us in the maintenance of the structures in this re-created village which offers a glimpse of life in pre-European California. Rain cancels. Meet at Kule Loklo in work clothes. Bring a bag lunch and drinking water.

Open House at the Lifeboat Station Tour this historic structure and learn about the maritime and lifesaving history of the Point. The Lifeboat Station was used by the U.S. Coast Guard from 1927 - 1968. A slide show will be presented. The first floor is wheelchair accessible with restroom. Park at the Chimney Rock lot and walk a 1/2 mile down the paved road to the right.

Take a Break at Drake Learn about the history, animal life, or geology of this beautiful haven on Drakes Bay. Ranger's choice of topic each week. Meet at the Ken Patrick Visitor Center. 45 minutes.

Tidepooling Tidepooling can be a great deal of fun for families and anyone who wishes to explore an ecosystem normally off limits to land mammals such as ourselves, even if they might get their feet wet. The best and most successful time to go on a tidepool adventure is at a negative low tide. Though the tide cycles two times a day, it is not always at the same level. The level of the tide depends on the spacial relationships between the sun, the moon, and earth. Tide tables are available at our visitor centers or at local book and sporting goods stores. A two hour window of time, starting one hour before and ending one hour after the stated low tide, is the safest time for exploration. Always keep one eye on the waves and the water level to make sure you are not surprised by an unexpected wave surge or trapped by the incoming tide in a secluded spot. Chimney Rock, Sculptured Beach and Palomarin Beach are the best spots in the park to go tidepooling.

Best Tidepooling this Fall:
Wed., Oct. 15 - Fri., Oct. 18
Fri., Oct. 31 - Mon., Nov 3
Wed., Nov. 12 - Sat., Nov. 15
Fri., Nov. 28 - Sun., Nov. 30
Thurs., Dec. 11 - Sun., Dec 14
Sat., Dec. 27 - Tues., Dec. 30

Visitor Centers

Lighthouse Located on the Point Reyes Headlands, the center has exhibits on whales, wildflowers and lighthouses. It is a 0.4 mile walk from the parking area. The lighthouse is 300 steps down the cliff from the visitor center. Dress warmly, weather conditions are unpredictable.
Open Thursday - Monday, 10:00 am to 5:00 pm
Lighthouse Stairs: 10:00 am to 4:30 pm
Closed Tuesday and Wednesday
Phone: (415) 669-1534

Bear Valley This barn-sized building provides an orientation to the park's roads, trails and general history. Exhibits provide an introduction to the plants, animals and people of this area. Reservations and permits for backcountry camping can be obtained here. A dramatic slide program is available upon request.
Monday through Friday, 9:00 am to 5:00 pm
Weekends and holidays, 8:00 am to 5:00 pm
Phone: (415) 663-1092 Camping: (415) 663-8054

Ken Patrick Located at beautiful Drakes Beach, this facility has been expanded for exhibits focusing on 16th century maritime exploration, marine fossils and marine environments. A 250 gallon salt water aquarium highlights life from Drakes Bay. A minke whale skeleton is suspended from the ceiling. Drakes Beach Cafe, our only food concession, is next door.
Open weekends and holidays only.
Closed for lunch 12:00-12:30 pm
Phone: (415) 669-1250

Seals

Juvenile elephant seals haul out onto beaches in large numbers to molt September through November. Adult bulls first arrive in late November with large numbers to molt September through November. Male bulls first arrive in late November with large numbers to molt September through November. Adult females arrive a few weeks later. Though the males are ready to mate immediately, the females are preparing to give birth to an 80 pound pup and will not be receptive to the male until their pups are weaned at one month of age. Breeding behavior and pup rearing continues into mid-March.
What You Need to Know

The National Seashore has over 140 miles of hiking trails. There are many ways to customize your hike to accommodate your physical and time limitations, as well as coastal or forest ecosystems, flat or strenuous terrain. To keep your adventure safe and enjoyable, and protect park resources, please observe these regulations:

*Stay on trails* to avoid poison oak, stinging nettles and ticks. Do not shortcut switchbacks. This causes erosion and damages trails.

*Stay away from cliff edges.* Loose soil can give way suddenly, sending you crashing to the rocks below. Do not climb cliffs.

*Dress appropriately.* Wear layered clothing and be prepared for wind, rain, fog or sunshine.

*Always carry water and carry some food for longer hikes.* Dehydration is a common cause of exhaustion, fatigue and headaches. Do not drink from streams: the protozoan *Giardia lambia* may be present and can cause severe illness. Drinking water is available only at visitor centers.

*If horses are passing on the trail, step to the downhill side and greet the rider so the horses know you're there; do not touch the animals.*

*There are no lifeguards on duty at any of our beaches. Severe rip currents exist along North and South Beaches. Large sneaker waves can knock you down without notice. Do not turn your back to the ocean. Average water temperature is 55 degrees.*

Pets are wonderful animals that give comfort and companionship. However, a national park is not the best place for them. Dogs chase, scare and can transmit diseases to wild animals. The "scent of a predator" dogs leave behind can also disrupt or alter the behavior of the native animals this park has been set aside to protect. If you bring a dog, please observe the following regulations:

*Dogs are allowed at Kehoe Beach, southern Limantour Beach, Palomarin Beach, North and South Beaches. They are also allowed in parking lots and the Bear Valley picnic area.*

*Dogs must be on a leash no longer than six feet long at all times in any of these places.*

*Camping anywhere outside of these four designated campgrounds or without a permit is illegal.*

We operate four hike-in wilderness campgrounds. A fee is charged for the required permit. Reservations are recommended and may be made up to eight weeks in advance by calling the Bear Valley Visitor Center at (415) 663-8054, Monday through Friday, 9:00 am to 2:00 pm. Permits must be picked up at this visitor center before starting your trip. Camping anywhere outside of these four designated campgrounds or without a permit is illegal.

*Each campground has pit toilets and water. Do not drink from streams or lakes without proper treatment.*

*Each campsite has a picnic table, a charcoal grill and a food storage locker.*

*Store food securely from animals in the food storage lockers. Dispose of scraps in waste containers or carry out. Wash dishes away from water spigots. Do not feed any wildlife!* 

*Wood fires are not allowed at the campsites.*

Use charcoal in the grills or use a backpacking stove to cook.

Quiet time is after sunset. Please respect your neighbor's wilderness enjoyment.

*Stay within the designated site. Camping out of bounds is illegal and only destroys the wilderness you have come to enjoy.*

*Hog Island is open to day use only. No overnight camping is allowed.*

Over 25,000 visitors camp in the park each year. Help us keep Point Reyes wild.

Permits are now required for any beach fire ignited within the National Seashore. Permits are available at visitor centers, the dispatch office and from field personnel. The permit is free. On high fire danger days all permits previously issued become null and void. Call (415) 663-1092 ext. 402 for current fire conditions.

*Wood fires are allowed only on beaches, well away from any vegetation. They are allowed nowhere else. Wood must be brought in from outside the park or reasonable amounts of driftwood may be gathered from beaches. The fire may not be more than 36 inches in diameter.*

*Before leaving your beach fire, put it out completely with water. Do not cover up coals with sand as it will only insulate the heat and be an unseen danger to wildlife or barefoot visitors.*

*Charcoal fires are allowed in the Bear Valley and Drakes Beach picnic areas and the backcountry campgrounds in the grills provided. Visitors may also have charcoal fires in their own container or grill on beaches away from vegetation. Pack out used charcoal.*

Be Aware

The National Park Service works to reduce risks in the parks, but nothing can replace your responsibility for your own safety. Take time to read the warnings below and on local bulletin boards. If you have questions, ask a ranger. Don't let the lure of spending time in this beautiful park be tarnished by an accident. Keep your eyes open and your wits about you.

**Ticks**

Ticks that carry Lyme disease are known to occur in this area. Stay on trails and check your clothing frequently. The quicker ticks are removed, the less the chance of transmittal of the organism that causes illness. Wearing light colored, long pants helps you spot them and tucking your pants' legs inside your socks keep them from crawling up your legs. Always check your body completely at the end of your hike.

**Poison Oak/Stinging Nettle**

Staying on trails will help you avoid two plants which can cause annoying skin irritations. Poison oak has three smooth, shiny leaves and is usually bright green but often has a red coloration in new shoots and in the dry season. Thoroughly wash any skin that may have come in contact with the plant with cool water and a grease cutting dish soap. Be sure to also wash all clothing before wearing again. Stinging nettle is a tall weedy plant with needle-like projections which inject a chemical into your skin, creating a burning sensation for up to 24 hours. If you are unsure what either of these plants look like, stop at a visitor center before starting your hike.

**Beaches**

The National Seashore offers a diversity of beaches to explore. However, if you plan to spend any time near the shoreline stay aware of the movement of the tides. Consult a tide book before going tidepooling. Always keep an eye on the surf and watch for occasional, especially large waves, called sneaker waves, along Pacific Ocean beaches. Also remember, since fire permits are issued for beach fires, hot coals may exist below the surface if fires have not been extinguished properly. Wearing shoes on beaches is recommended.

**Mountain Lions**

Mountain lions do live in the park and your paths may cross. Sighting a lion is usually considered a rare treat. Generally, there is no need to fear lions. Ironically, the wild animal that causes more human deaths per year than any other is not the mountain lion, but its primary prey — deer. Visitor centers have information on how to behave in lion habitat and what to do if you should see one in the back country.
Tule Elk Management

Tule elk were reintroduced to Point Reyes National Seashore on Tomales Point in the spring of 1978 after an absence of more than 100 years. Ten elk were released on 2,600 acres within a fenced area of open grassland and coastal scrub, withdrawn from cattle grazing and designated as legislated wilderness. Initially, tule elk population growth was low because of environmental constraints such as drought and cattle grazing. In the intervening years, habitat conditions recovered from the depressed condition of the range, nutrition deficiencies abated and the clinical occurrence of Johne’s disease (a paratuberculosis) in the elk subsided. By the summer of 1988, the population was at 93 animals. Their numbers continued to increase: 169 elk were counted in 1991, and 254 in 1994. Following the end of the drought and the early 1990s, range condition improved dramatically with a consequent rapid increase in elk numbers. The population census taken in the fall of 1996 counted 386 elk (92 calves) and in the summer of 1997, 465 elk (92 calves) were counted.

For the last three years, research has been conducted to determine the best way to manage the Tomales Point ecosystem. Critical data on population dynamics, herd composition and size, and the condition of the sensitive plant communities is being gathered and studied. The National Park Service has been evaluating whether the population of elk would naturally regulate because of environmental constraints as they do, for example, in Olympic National Park.

Based on the recommendations of three separate scientific panels, the Seashore is presently conducting a contraception study on thirty female elk with the goal of “helping” the herd to self-regulate. The vaccine contraceptive was administered before this season’s rut (breeding season) in order to test the efficiency of using this technique for slowing the growth rate of tule elk on Tomales Point. The contraceptive is the preferred method because it is reversible and has no behavioral or environmental by-product. Implementation of this study will also provide information, and methodologies with broad implications for other parks and wildlife areas worldwide.

Over the next year, Point Reyes National Seashore will be preparing a draft tule elk management plan and environmental analysis for public review. From the draft document, the park will prepare a final management plan to guide future management decisions for tule elk on Tomales Point and other locations if determined appropriate. With critical research and public input, the final management plan will be developed to ensure long-term protection for the elk and the environment of Tomales Point.

Questions and Answers

What was their original range?
In the early 1800s, approximately 500,000 tule elk roamed California’s mountains, valleys, and coastal forests in the central valley and along the coast of California, from Shasta County to San Luis Obispo.

What caused their demise?
Loss of habitat (wetlands favored by tule elk were drained for more farmland), and unregulated market hunting for their meat, fat, and hides in the years following the gold rush. By 1870 tule elk were thought to be extinct.

How are the projects being funded?
To date, monetary support and in kind services for the tule elk project has been received from the Rocky Mountain Elk Foundation, Point Reyes National Seashore Association, Committee for the Preservation of Tule Elk, California Department of Fish and Game, UC Davis, NPS Natural Resource Preservation Program, and In Defense of Animals. The Humane Society of the United States (HSUS) has agreed to provide the vaccine for this project.

Who are the natural predators of tule elk at Point Reyes?
The elk could be predated upon by the mountain lion population at Point Reyes; however, National Park Service research has indicated that would have a negligible effect on the tule elk.

What is the annual cycle of tule elk?
Because of the mild climate here, calves may be born from late February through June. At birth, calves weigh 30-40 pounds. They nurse for up to nine months and may begin grazing at the young age of two months. Bull elk shed their antlers in February and March; the antlers are grown back by August, in time for the rut (breeding season) months of August through October. Their gestation period is seven months and their average lifespan is ten to twelve years.