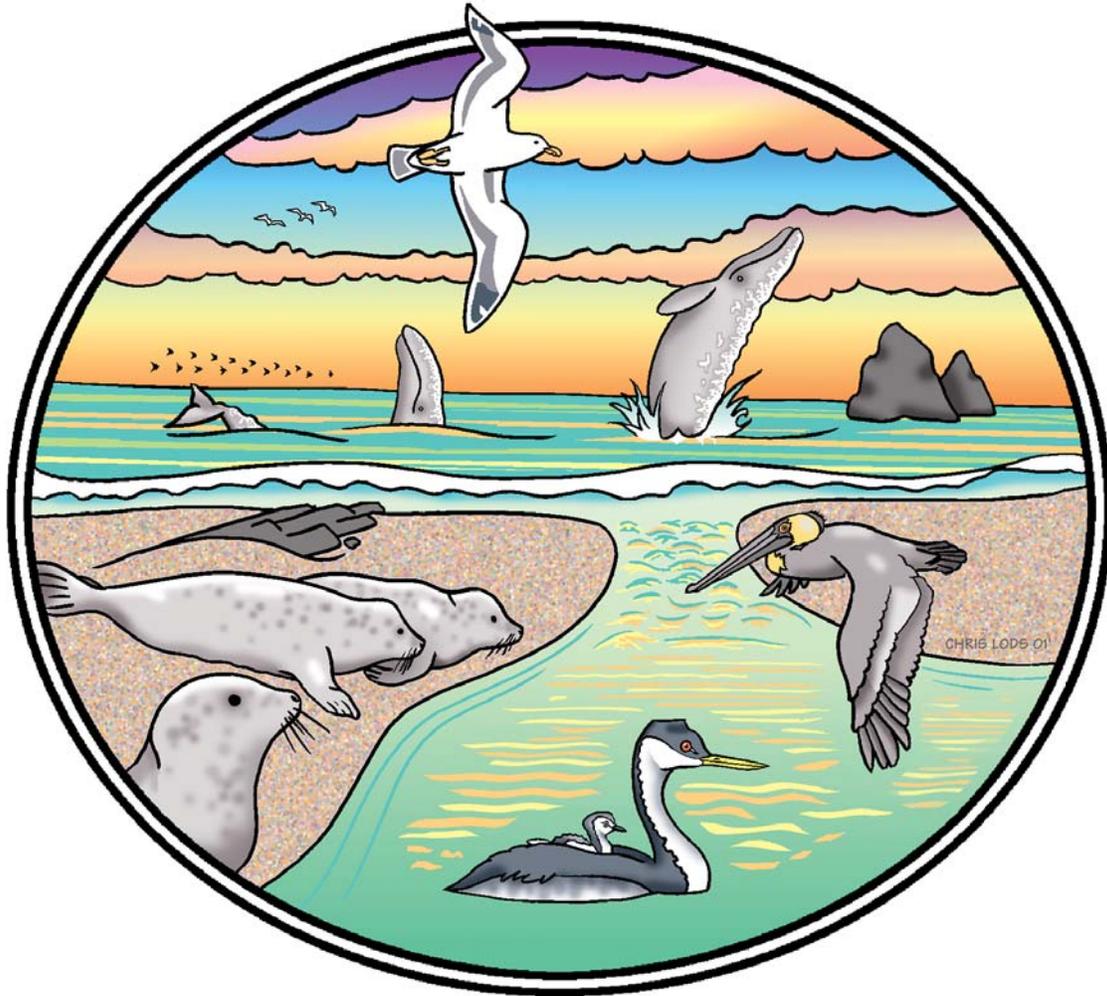


CALIFORNIA STATE PARKS



Jenner Visitor Center

Sonoma Coast State Beach Docent Manual

Developed by Stewards of the Coast & Redwoods
Russian River District State Park Interpretive Association

Jenner Visitor Center Docent Program

California State Parks/Russian River District

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PART I

THE CALIFORNIA STATE PARK SYSTEM AND VOLUNTEERS



THE CALIFORNIA STATE PARK SYSTEM

The State Park concept is generally believed to have started in California in 1864 when President Abraham Lincoln signed an Act of Congress transferring the areas then known as the Yosemite Valley and Mariposa Grove of the Sierra Redwoods to California. In 1905, however, these lands were returned to the federal government.

Three years earlier, in 1902, the present California State Park System was begun with the establishment of the California Redwood Park at Big Basin in Santa Cruz County. It is only fitting that one of our state's proudest possessions -- the magnificent coast redwood (*sequoia sempervirens*) -- should have provided the inspiration for the creation of California's first permanent park.

Today, with nearly 300 units, California has one of the largest and most diversified park systems in the nation. Represented in those units are outstanding examples of the state's unique scenery, including redwoods, deserts, historical units, scenic reserves, recreation areas and mountain parks for the public to enjoy.

California State Parks acquires, designs, develops, operates, and maintains units of the State Park System. These activities are directed toward the accomplishment of eight principle objectives:

1. Secure and preserve elements of the state's outstanding landscape, cultural, and historical features.
2. Provide the facilities and resources that are required to fulfill the recreational demands of the people of California.
3. Provide a meaningful environment in which the people of California are given the opportunity to understand and appreciate the state's cultural, historical and natural heritage.
4. Maintain and improve the quality of California's environment.
5. Prepare and maintain a statewide recreational plan that includes an analysis of the continuing need for recreational areas and facilities and a determination of the levels of public and private responsibility required to meet those needs.
6. Encourage all levels of government and private enterprise throughout the state to participate in the planning, development and operation of recreational facilities.
7. Meet the recreational demands of a highly accelerated, urban-centered population, through the acquisition, development and operation of urban parks.
8. Encourage volunteer service in the State Park System.

STATE PARK RULES AND REGULATIONS

"THE BEST OF CALIFORNIA FOREVER" -- with your help and cooperation. It is very important that the park visitor is given this message. Parks are for people to use and enjoy, not abuse and destroy. Without protection, the highly perishable values of the areas preserved in the California Park System could soon be destroyed.

In many cases, park protection can be accomplished by interpretation of park philosophy, policies and rules and regulations. Enforcement becomes necessary if and when other means prove insufficient. Many people who misuse or abuse a park area or facility do so only through thoughtlessness or ignorance. It is usually sufficient to bring to their attention the permanent nature of the damage resulting from improper use.

Though some may resist compliance because of lack of understanding, it isn't often that a simple explanation of the reasons behind the rules will fail to obtain willing cooperation. However, there is a small percentage of visitors who, once they understand the "why," will continue to resent or resist the regulations. They will require special attention and probable enforcement action.

As a volunteer, you may encounter situations where you must decide whether a visitor's actions merit only an explanation of a rule or more formal action. If enforcement action is indicated, or a public relations problem seems imminent, remember that State Park rangers have peace officer authority. Do not threaten or try to bluff a visitor. Never hesitate to call upon a ranger or lifeguard for guidance or assistance in any situation that threatens to become a problem.

Every volunteer is charged with the responsibility of observing and recognizing any acts that may constitute potential hazards to the safety of people or property. Such acts should be reported promptly to a ranger, supervisor, or lifeguard. This will permit effective action to eliminate the hazard. It will also help forestall or minimize any liability in case of an accident.

It is important that each volunteer read and become familiar with rules and regulations of the State Park System, specifically those that apply to the Sonoma Coast State Beach. The following is a summary of some of the more commonly seen violations:

ANIMALS

No person is allowed to hunt, injure, or otherwise disturb any animal within the park's boundaries. State Fish and Game regulations govern all activities from the average (mean) high tide area and beyond. Within this authority, tide pool creatures are protected from molestation and injury. Marine mammals are further protected by federal statute from harassment.

BOAT SPEED LIMIT

No person shall operate any motorboat at a speed in excess of five miles per hour on the Russian River from its mouth to Duncans Mills (Sonoma County Ordinance No.3308).

CAMPING

Camping is allowed only in designated campgrounds, which include the four state-operated campgrounds at Wright's Beach, Bodega Dunes, Pomo, and Willow Creek.

CLOSED AREAS

Because of the significant dangers to the public, certain areas may be closed to public access at the discretion of the District Superintendent. On the Sonoma Coast, two locations have specifically led to the deaths of a number of park visitors. Goat Rock proper is completely closed to any kind of hiking or climbing activity, and the rock outcropping at Duncans Landing, known as Death Rock, is restricted to any type of entry.

COLLECTING

Living and non living things are protected within state parks, including all plant life and drift wood. Permits must be obtained from the District Superintendent for any exception. Contact a local ranger for information on exceptions.

CRIMINAL ACTIVITIES

Any activity that is defined as criminal through the California Penal Code is illegal within a State Park unit. Other violations that also apply include all alcohol-related regulations.

CURFEW

Juveniles (under 18 years of age) may not be on the Sonoma Coast State Beaches after sunset unless accompanied by their parent or guardian.

FIREARMS AND WEAPONS

Regardless of the intention of their possession, it is illegal to possess or carry any weapon capable of causing injury.

FIRES

Fires are allowed only in designated fire pits.

GEOLOGICAL AND ARCHAEOLOGICAL FEATURES

Such features are protected from activities including removal, disturbance, disfigurement, defacement, destruction or mutilation.

HORSES

Generally, horses may not be ridden on beaches. Certain areas are exceptions, including the beach south of the Bodega Dunes day use area.

LITTER

Disposal of any item, other than in a proper trash receptacle, is prohibited.

OFF-HIGHWAY VEHICLES

No vehicles are allowed off-road in a State Park, and all vehicles must be registered through DMV for use on roads.

PETS

Animals must be kept leashed and under control at all times within a State Park unit. **Dogs are not allowed on hiking trails or at the environmental campgrounds. Certain areas are closed to dogs on Sonoma Coast, including the bluffs on Bodega Head and Goat Rock beach. Dogs are allowed on a leash at Blind Beach.**

PUBLIC RESOURCES CODE

The Department shall protect the State Park System from damage and preserve the peace therein. Any person who violates the rules and regulations established by the Department is guilty of a misdemeanor and, upon conviction, shall be punished by imprisonment in the county jail for a time not to exceed 90 days, or by a fine not exceeding \$500, or by both such fine and imprisonment.

VEHICLE OPERATION

All rules of the road, as defined by the California Vehicle Code, apply in State Parks.

ROLE AND FUNCTION OF VOLUNTEERS IN THE STATE PARK SYSTEM

Volunteers are trained but unpaid employees of the State Park System who perform a valuable function by augmenting park staff in providing increased services for the visiting public. Volunteers perform a variety of tasks and assignments throughout the State Park System, including giving tours, assisting with fundraising, working in sales booths and giving demonstrations.

We encourage volunteers to make use of any resources available to them to enhance their experience, including staff members, veteran volunteers, written materials and library information. The District Office and unit offices each have a variety of materials to offer.

Many of the state park volunteers who volunteer in this district are also members of the Stewards of the Coast and Redwoods, the cooperative association for the Russian River district. Many volunteers find a great deal of satisfaction in their involvement with this group. Membership is not required, but it is desirable in order to share information and keep updated about current activities in the Mendocino/Russian River District.

VOLUNTEERISM DEFINED

1. All of your service will be on a strictly voluntary basis, and you cannot be required by park staff or anyone else to do any work that you do not wish to do.
2. You will be covered by Workers' Compensation Insurance in the event you are injured while working in the park, providing you are following the duties outlined in your duty statement. For this condition to be valid, you must first complete and submit to your District Supervisor the Volunteer Service Agreement (DPR 208). You will be covered by the same policies as regular employees regarding liability.
3. A number of state and federal tax benefits are available for volunteers. You may be able to deduct some unreimbursed expenditures made while serving the department, such as automobile mileage, bus and cab fare, parking and toll fees, cost of meals and lodging if away overnight, travel expenses above per diem allowance, and expenditures for special uniforms or costumes, as approved by California State Parks.

VOLUNTEER STANDARDS

As a volunteer, you are expected to conduct yourself in a manner that reflects pride in yourself and in the State Park System. In order to operate the interpretive program efficiently, all volunteer staff members must adhere to certain rules, procedures, and standards. The following information is intended to give you some guidance along these lines. Volunteers who display an unwillingness to conform to these standards will be asked to leave the program.

PUNCTUALITY

Plan to arrive at your committed shift location on time.

DEPENDABILITY

You will be asked to make a voluntary commitment of time so a reliable schedule can be followed. If an unforeseen emergency arises and you cannot work a shift, notify the volunteer coordinator as soon as possible. Remember, promptness and reliability are crucial! Teamwork and cooperation keep our volunteer program alive!

APPEARANCE

You must be neat and clean in appearance when acting in a public function.

ATTITUDE

A pleasant and professional attitude is all important. All visitors are guests, and it is a primary responsibility to see that their visit is pleasant, enjoyable, and safe. Sincere concern and friendly interest should characterize staff dealings with all visitors. The public expects and deserves always to be treated in a courteous and professional manner. If a visitor comes to you with a complaint, explain to him/her what action you can or cannot take and report the matter promptly to a ranger or lifeguard. If a visitor asks you to identify yourself, do so.

Above all, never give false or misleading information to the public. If you do not know the answer, do not be afraid to say so, but try to be well-informed and helpful. Avoid any public criticism of the State Parks Department, staff, or policies when performing volunteer duties. If there is something you disagree with, discuss it with the volunteer coordinator.

Your pleasant and professional attitude should also extend to your fellow volunteers. You must have a willingness to work as a team member with other volunteers, as well as with park staff. Special privileges or separatism should not be expected and will not be tolerated.

BEHAVIOR

Inappropriate conduct, the illegal use of drugs, reporting to work with alcohol on the breath, being drunk or drinking alcohol on duty, or commission of a serious crime are all expressly prohibited and will result in your being asked to leave the program.

It is your responsibility to treat your co-workers and park staff with courtesy and respect; to obey all lawful orders; to report to the park on time and ready to work; and to remain alert while on duty. It is not proper to listen to music, play cards, or perform other such activities in view of the public. Keep private visiting to a minimum when the public is present. Do not use public contacts as a soap box for your private views.

AUTHORITY

As a volunteer, you do not have peace officer authority. You should be familiar with park rules and regulations, and, using your best judgment, you should caution park visitors if you witness a violation of these regulations. Report all violations of the law or park rules that you witness to a ranger. You are, of course, expected to personally comply with all park rules and regulation.

CONFIDENTIALITY

Certain information of which you may become aware is confidential and must not be discussed outside the organization. Confidential information includes such things as crime and incidents, rescue and accident reports, disciplinary actions, employee grievances, budget proposals and proposed policy changes. If you are questioned on these matters, politely but firmly refer the questioner to park staff.

INTERPRETATION

You are required to read this manual in order to become familiar with the basic information. It is important that all volunteers know and adhere to a certain "standardization of facts" for a consistent interpretive program. A fact stated as a fact must, in fact, be a fact! A story, legend, or conjecture may be included in your presentation, but it must be clearly identified as such. Admit, "I don't know," rather than relate misinformation. Don't change from interpreting facts to personal showboating. Let your visitor be your guide to the direction of your interpreting.

A satisfactory speaking voice and the ability to communicate well are basic requirements for effective interpretation. Park staff will assist you in your interpretive efforts. It is important that you possess the ability to accept constructive criticism for reasons of self-improvement. All volunteers are encouraged to repeat training sessions as a refresher and to assist in sharing information and experiences as a volunteer.

INTERPRETIVE PRINCIPLES

<u>Interdependence</u>	John Muir said, "When we try to pick out anything by itself, we find it hitched to everything else in the universe." This is ecology: the relationship between organisms and their environment. Include the interdependence between people and nature; exchange examples of how environmental, cultural, and historical features do not occur in isolation.
<u>Relate</u>	The interpreter must relate the subject to the personality or experience of the visitor. Common ground may be found in historical or current events, environmental concerns, new or shared experiences.
<u>Information</u>	Volunteers must be trained, or have the experience, to know more than the average visitor does about related subjects. If you do not know the answer to a question, an offer to follow-up should be made. At the same time, knowledge of "just the facts" does not insure good "interpretation."
<u>Values Awareness</u>	The values we hold influence how we treat the environment and each other. A dialog about the qualities of respect, appreciation, conservation, and preservation may promote new understanding.
<u>Sensory Awareness</u>	We absorb information about the environment through our senses. How do visitors experience the coast through sight, sound, touch, and smell? What do they feel emotionally?
<u>Involvement</u>	A Chinese proverb says, "What I hear, I forget; what I see, I remember; what I do, I understand." Encourage active exploration and enjoyment of Sonoma Coast.
<u>Historical Perspective</u>	How can the visitor appreciate the cumulative effect of change? Integrate the "hidden" history of the coast: the Del Rio and Miwok, the diversity of activity in Jenner, Fort Ross and Bodega Bay, the timelessness of the coast, headlands and dunes.
<u>Stewardship</u>	As caretakers, we are charged with assuring the integrity, responsible use, and preservation of our cultural, natural, and historical heritage.
<u>Children</u>	Interpretation addressed to children up to the age of 12 should not be a dilution of that appropriate for adults. It should follow a fundamentally different approach without "talking down" to them. Engage by asking if they are local or on vacation; are they familiar with the beach, seals, etc.
<u>Enjoyment</u>	Having fun facilitates learning. This is a scientifically established fact! Have fun and be sure the visitors do, too!

PART II

RUSSIAN RIVER DISTRICT STATE PARK INFORMATION



***This is a quick reference to neighboring state parks.
In total, there are 266 state park units covering 1.4 million acres
(approximately 1.4 % of California's total land and water surface).***

Armstrong Redwoods State Reserve/Austin Creek Recreation Area

Approx. 16 miles; Highway 116 to Armstrong Woods Road; left at light.

Armstrong is an old-growth redwood forest.

Multisensory accessible trail in the grove; accessible restrooms, free parking lot, visitor center, picnicking. Hiking and equestrian trails.

Austin Creek is composed of open forests and rolling hills.

25 miles of trails for hikers and equestrians.

23 site campground; 4 back country sites; first-come first-served.

Road closed to vehicles more than 20 feet long and pulled vehicles of any length.

Fort Ross State Historic Park

Approx. 12 miles north of Jenner.

Dates to 1812; Russian's southernmost outpost in North America.

Visitor Center displays park's unique cultural history.

Picnic area, exhibits, trails all accessible.

Fort Ross Cove includes a protected, quiet beach.

20 primitive campsites; first-come first-served 3/15 - 12/1.

Not suitable for large RVs.

Kruse Rhododendron State Reserve

Entrance near milepost 43 on Highway 1 (adjacent to Salt Point State Park).

Second growth redwood forest; 5 miles of hiking trails.

Rhododendrons bloom April - June.

Salt Point State Park

Approx. 17 miles north of Jenner.

Six miles of coast reaching 1000 feet above sea level.

Hiking and equestrian trails; sandy coves.

Camping, picnicking, exhibits, trails are accessible.

SONOMA COAST STATE BEACH

**If asked a question you don't know the answer to, admit it.
Offer to take the visitor's name and phone number for follow-up contact.**

State Park in 1934; over 5000 acres, 18 miles of coast
4th most popular of 266 parks; est. 2-2.8 million visitors this year

Animals: no person is allowed to hunt, injure, or otherwise disturb any animals.

Living and non-living things are protected, including all plant life and driftwood.

Geological and archaeological features are also protected from removal, disturbance, injury, disfigurement, defacement, destruction, or mutilation.

Beach Safety See "Swimming" in this section and "Sonoma Coast Beach Safety"
On beaches, visitors should stay above the high water line (look for debris line); cliffs consist of decomposing sandstone and are unstable and unsafe.

Bicycles Paved and fire roads only; Willow Creek Road and Bay Flat Road.
California state law requires bicyclists under 18 years old to wear helmets.

Birds 300 species, including:

Great Blue Heron	Osprey
Brown Pelican	Pelagic Cormorant
Common Loon	Common Merganser
Egrets	Western Grebe

Refer to reference books under counter.

Boats Speed limit is 5 mph from Duncans Mills to mouth of river
(Sonoma County Ordinance 3308).
Not permitted within 100 yards of haulout area
Rentals at Cassini (right on Moscow Road);
Kayak rental from Lotus or Gold Coast Coffee in Duncans Mills.
300 ft./parallel approach to seals.
Bodega Bay Sport Fishing Center 875.3344
Wil's Whale Watching/Harbor Cruises 875.2323

Camping	State sites: Wright's Beach, Bodega Dunes; for state campground reservations call 1.800.444.7275 (8 am - 5 pm); some \$1 hiker/biker sites at Bodega Dunes. Environmental campgrounds at Pomo Canyon, Willow Creek: no reservations, pay at campground. Environmental campground users may shower at Bodega Dunes with receipt. Refer to white campground sheet for private campgrounds including Bridgehaven and Cassini.
Closed Areas	Goat Rock proper and Death Rock (Duncan's Landing).
Dogs	Six foot leash - Only allowed on paved roads and Blind Beach. No access to Bodega Head bluffs and Goat Rock Beach; not allowed in environmental campgrounds or Austin Creek back country camps. Must be in tent or vehicle at night.
Fires/Firewood	Fires allowed only in designated fire pits. Wood available at Bodega Dunes & Wright's Campgrounds \$5
Fishing	License issued for day or year, required at age 16. Visitor is responsible for checking current regulations. Available at Casini or in Bodega Bay. Clamming is year-round. Crab season is mid-November through June. Ocean: salmon, ling cod, rockfish, perch, bottom-fish, red abalone, mussels, cockles River: Salmon (Sept. - Nov.) steelhead (Nov. - Mar.) shad (mid-spring - early summer) bass, bluefin, catfish. (Refer to blue leaflet from King's) Abalone requires ticket and punch card. Season is April - June and then August through November. Must use legal size abalone iron. Limit three in your possession; size 7 inches.
Gasoline	Jenner, Bodega Bay (11 mi), Stewarts Point (27 mi), Guerneville (14 mi).
Horses	Salmon Creek from the boardwalk south to Bodega Head Trailer Parking off Bay Flat Road For hire at Chanslor Ranch just south of Salmon Creek and Hwy 1 phone 875.3333. Armstrong Pack Station 887.2939.
Laundromat	Pelican Plaza, Bodega Bay or in Guerneville
Marine Lab	(UC Davis) The lab is open to the public on Fridays between 2 and 4 p.m. The Bodega Marine Reserve is off-limits to the public.
Mushrooms	After first fall rains - 5 pound limit per person per day.

	Collection is allowed only at Salt Point State Park.
Off-Road Vehicles	Not allowed in a State Park. All vehicles must be registered through the DMV.
Penny Island	No access limitations as long as visitors are in compliance with all state park rules and regulations.
Picnic Supplies	Jenner, Bodega Bay, Duncans Mills, Guerneville
Rhododendrons	Late April through May at Kruse Rhododendron State Reserve north of Salt Point.
Seal Watching	.8 mile to overlook to see seals ; pullouts at m 22.04 and 22.08. "Pupping season" is typically April-May; Seal Watch operates late February through August at Goat Rock Beach. Stay at least 50 yards away on beach; boats and kayaks, 300 ft./parallel approach.
Swimming	Not recommended on Sonoma Coast. Suggest Doran Beach south of Bodega Bay.
State Parks	Fort Ross Historic Park - 12 mi Salt Point State Park/Kruse Rhododendron State Reserve - 17 mi. Armstrong/Austin Creek - 16 mi
Tidepools	Check tides in SOS tide book: Shell Beach 2 mi. south at m 18.22 Schoolhouse Beach at m 14.40 Marshall Gulch m 14.05 Seaweeds, barnacles, anemones, sponges, jellyfish, worms, snails, sea slugs, clams, oysters, scallops, chitons, squid, octopus, abalone, periwinkles, limpets, mussels, cockles, shrimps, crabs, starfish, sand dollars, sea urchins.
Whales	Pacific Grays migrate south December - January and north February - April. West parking lot at Bodega Headlands; Whale Watch volunteers there every weekend from January through mid-May with telescopes, noon to 4 p.m.

SONOMA COAST BEACH SAFETY

Swimming and wading in the ocean is not recommended anywhere at Sonoma Coast State Beach. Coastal conditions are very rough and treacherous, especially during "sleeper wave" season, from September to March. Suggest Doran Regional Park, just south of Bodega Bay.

Many people have drowned along the Sonoma Coast State Beach from Bodega Head to Russian Gulch. At Duncans Landing, about five miles north of Bodega Dunes, more people are killed than on any other stretch of coastline in California.

There are several hazards that make the water unsafe even for strong swimmers.

- Water temperature** The water is always cold, varying from 48° to 52° F, so the hazard of hypothermia, a condition that robs its victims of upper body strength, is great.
- Sleeper waves** These waves hit an unsuspecting person and pull them into the sea. "Sleeper" refers not to the wave, but to the unsuspecting visitor it snatches from the beach. These waves are giants, formed randomly by the sudden alignment of different sets of waves born of the Pacific's storms. When the waves are out of phase, the trough of one set meets the peak of another, and they tend to cancel out one another, making the ocean appear calm. But because they are traveling at different rates of speed, at any moment they can become in phase, pitching peak atop peak, trough in trough, a a giant sleeper wave is formed.
- Character of sand** The Russian River spills geologically "new" large grained sand out of its mouth at Jenner, and a southerly current piles it on beaches along the Sonoma Coast shore. This large grained sand is like popcorn and is, therefore, easily moved by the ocean. It piles up all summer long until the beaches are very steep. When a person is awash in a wave against a steep beach, this sand erodes like a trapdoor from under their feet.
- Drop-offs/trenches** These run underwater parallel to the beach. They are formed by waves breaking against the beach face. If a person is swept past a drop-off where they cannot touch the ocean floor, they often panic and drown.

Rip currents

These ocean currents are caused by a build up of water near the shore. They are strongest during a lull in the crashing waves. Usually a rip current will result in a channel 25 to 100 feet wide resulting in a powerful current running offshore. Rip currents are usually sandy brown in coloration and are choppy in appearance. *To get out of a rip current, one should swim parallel to the shore until the pull stops. Then swim or tread water until a rescuer can come to assist.*

These are a few simple safety rules that visitors should be made aware of:

- **Do not allow children to play tag with the waves or wander on cliffs.**
- Stay back from cliff edges.
Coastal rocks are extremely unstable and unsuitable for climbing.
- Never climb cliffs or on slippery, wet rocks.
- Stay off of cliff areas that suspend you over the ocean.
- Always watch the ocean; do not turn your back on the ocean.
Sleeper waves are both large and unpredictable.
- Look at the lines of driftwood and foam on the beach. No one should go between the highest line and the ocean.
- Always have an escape plan.
- When fishing lines snag, do not go into the surf zone to free the line.

**IN AN EMERGENCY, CALL 911
Lifeguards will be dispatched**

TIDE POOLING AT SONOMA COAST

The first thing needed is a low tide, preferably a minus or near minus tide. Check the SOS tide book for this information.

The following beaches are recommended for tide pooling:

Shell Beach	milepost 18.22	approx. 2 miles south of Jenner
Schoolhouse Beach	milepost 14.40	approx. 6 miles south of Jenner
Marshall Gulch	milepost 14.05	

The tide pools, rocky pockets that retain water when the tide goes out, and the intertidal zone, that area between high and low tides, host an extremely rich and diverse marine community. Making their home here are several species of plants and animals, including seaweeds, barnacles, anemones, sponges, jellyfish, worms, snails, sea slugs, clams, oysters, scallops, chitons, squid, octopuses, abalones, periwinkles, limpets, mussels, cockles, shrimps, crabs, starfish, sand dollars, sea urchins, fish, and many others.

The ecology of the intertidal zone is very fragile and, therefore, easily disturbed. Such a simple act as turning over a rock can expose certain immobile marine animals to the fatal rays of the sun. As a result, tidal invertebrates may not be taken in any tide pool or other area between the high tide mark and 1,000 feet beyond, except as follows. Abalones, chitons, clams, cockles, crabs, lobsters, scallops, ghost shrimp, and sea urchin may be taken, always in accordance with current fishing regulations.

Sonoma Coast State Beach Best Tidepooling Beaches

Beach	Parking	Access	Restroom S	Description	Emergency Info.	Safety Rating Safety Tips
Carmet mm. 14.13	Large parking area	Steps, short trail	No	Tidepool area: Good intertidal area Activity area: Good beach area for activities on north and south sides.	Nearest payphone: mm. 12.54 @ Salmon Creek Ranger Station Nearest call box: South to mm. 12.41 @ Bean Ave.	Rocky intertidal areas safe. Stay off/behind outermost exposed rocks. Use caution in coves especially during large surf.
Coleman mm. 13.40	3-4 bus capacity	Steep, paved access with wooden stairs	No	Tidepool area: Good intertidal area. Activity area: No flat area Small sandy cove to the North.	Nearest payphone: mm. 12.54 @ Salmon Creek Ranger Station Nearest call box: South to mm. 12.41 @ Bean Ave.	Rocky intertidal areas safe. Stay off/behind outermost exposed rocks. Use caution in coves especially during large surf.
School House mm. 14.44	Very large parking area. 6+ bus capacity	Excellent, easy access	Yes	Tidepool area: Good tidepool area to the south. Activity area: Large beach area.	Nearest payphone: mm. 12.54 @ Salmon Creek Ranger Station Nearest call box: North to mm. 15.90 @ Rock Point	Rocky intertidal areas safe south of cove. Stay well away from water and lone separated rack in main cove. <u>Very</u> dangerous steep beach.
Shell Beach mm. 18.22	Very large parking area; multiple bus capacity.	Steep stairs and dirt trail to beach. Trail eroded.	Yes	Tidepool area: Rocky outcropping. Activity area: Sandy cove to the north.	Nearest payphone mm19.79 Bridgehaven Nearest call box: mm. 15.90 @ Rock Point or 20.50	Rocky intertidal area safe especially to the north. Stay off outermost rocks. Use caution in coves.

NOTE: Wrights Beach has restrooms and a very large parking area with a bus turnaround. Good lunch spot and Beach Safety Talk.

FISHING GUIDE

Anyone over 16 years of age must have a fishing license to take any kind of fish, mollusk, invertebrate, amphibian, or crustacean in California. Licenses can be purchased for either the year or the day. Regulations vary from fresh to salt water. **Visitor is responsible for checking current regulations.** Fish and Game Regulation booklets are available at any sporting goods or marine equipment store where fishing licenses are sold (Casini Campgrounds in Duncans Mills, 6 miles inland on Highway 116, or in Bodega Bay).

Clamming is year-round.

Crab season is mid-November through June.

Ocean: salmon, ling cod, rockfish, perch, bottom-fish, red abalone, mussels, cockles

River: Salmon (Sept. - Nov.) steelhead (Nov. - Mar.) shad (mid-spring - early summer) bass, bluefin, catfish. (Refer to blue leaflet from King's)

Abalone requires ticket and punch card. Season is April - June and then August through November. Must use legal size abalone iron. Limit three; size 7 inches.

SAFE HORSEBACK RIDING

Horses can be rented at the Chanslor Ranch, located south of Salmon Creek (north of Bodega Bay) on the east side of Highway 1.

In order to protect the natural environment and insure the safety of all park visitors, riders should be informed of the following rules:

- No horses are allowed north of the Bodega Dunes day use boardwalk. Horses are allowed on the trails or beach south of the boardwalk only.
- Load and unload horse trailers only at the horse assembly area located behind Bodega Dunes Campground (off Bay Flat Road).
- Horses are not permitted in the campground at any time.
- Overnight horse camping is not permitted at Bodega Dunes.
- Horseback riders should travel at a safe speed and slow to a walk when passing other trail users, announcing their presence prior to passing.
- Riders should stay on approved trails. Riding off trails damages the environment, causes erosion and threatens other park users and wildlife.
- Riders should carry identification on their person as well as on their horse.

HIKING

There are several hiking trails through the dunes and along the Sonoma Coast; it is a good idea to purchase a park map with the trails marked on it. Dogs and mountain bikes are not allowed on these trails (Section 4312 of the California Code of Regulations).

- Visitors should be advised to:
- Obey all warning signs
 - Be aware of wind and blowing sand
 - Always carry water; walking in beach sand and loose dunes is strenuous
 - Stay back from steep, unstable cliffs
 - Watch for poison oak
 - Check tide table; stay above tide line and do not turn your back to the ocean
 - Stay on trails and off adjacent private property

The following trails and locations are detailed in the Volunteer Reference Manual and the hiking books available at the visitor center.

Vista Trail m 26.3 (4 mi. north)

Picnic tables and outhouse; disability access; spur trail to observation deck

Russian Gulch m 24.55 (2 mi. north)

Not well-marked; immediate left after Russian Gulch bridge
Isolated beach sheltered by tall cliffs

North Jenner Headlands m 23.83

Descend rolling, grassy headlands to bluff's edge

Descent to North side of Russian River Mouth m 23.21

Steep descent from bluff to beach

Coastal Access m 22.24

Small dirt parking lot just north of milepost
80 ft. down moderately steep trail to long sandy beach

Coastal Access m 22.53

Two dirt pull-outs near milepost; not good on a windy day
Steep overgrown trail to exposed granite promontory with spectacular views

Dr. David Joseph Memorial Pomo Canyon Trail

Pomo Canyon Environmental Campground to Shell Beach (m 18.22)

On a clear day, views include: Jenner and mouth of Russian River, Northwest Cape at Fort Ross, Point Reyes, ancient sea stacks lifted 600 ft. by motion of San Andreas Fault.

Kortum Trail -- Blind Beach (m 19.15 Goat Rock Road) to Wrights Beach

Over ridge of Peaked Hill, grass-covered marine terrace, creek crossings, descend to black sand beach.

South Salmon Creek Trail

Access from Bodega Dunes (m 11.70) day-use parking lot

Bodega Dunes Loop (m 11.70)

900 acres; home to many mammals (deer, jackrabbits, mice, voles, foxes, raccoons, weasels, badgers), birds (red-tailed hawks, northern harriers, short-eared owls, California quail, ring-necked pheasants), seabirds, monarch butterflies.

Bodega Head Trails m 11.05 Bay Flat Road

Good trails for whale watching, December - April

Bodega Head Loop

Views of harbor, Campbell Cove, Hole-in-the-Head; wildflowers. Summit offers 360 degree view of Sonoma and Marin coasts.

Overlook Trail

Bodega Head to South Salmon Beach

PART III

Natural History



MARINE MAMMALS

The beach at Goat Rock, North and South, is a haul out site for harbor seals. They rest on the beach during the day and they have pups between March and August. Every weekend during the pupping season Seal Watch volunteers work on the beach to protect the seals and educate the public.

Advise visitors not to disturb or move within 50 yards of the seals. The presence of people can be very stressful for them; they do bite and will attack if they feel threatened. Tell visitors that harbor seals come ashore to rest, to regulate their body temperatures, and to reoxygenate their blood. Pups may be left alone on the beach for hours while the mother is feeding. If a visitor feels a seal is in distress they should not touch the animal or attempt to place it back in the water. They carry many diseases that can be transmitted to humans.

The Marine Mammal Center (MMC) located in Sausalito rescues animals in distress. Seal Watch volunteers may contact you to call MMC or a visitor may report a problem to you. **MMC needs as much detailed information as possible about a marine mammal in distress.**

The location: As accurate as possible. Closest mile marker; exact description of location; how close to the water; how close a vehicle can get to the animal; is there 4-wheel drive access.

Description of animal:

- Length, approximate weight, fur color.
- Is the animal making any sounds?
- Spotted coat? Fur on front or rear flippers?
- Light colored crest on the top of the head?
- External ear flaps?
- Does it flip sand on its back?
- Are there any tags on its flippers? Check location, color and number of tags if this can be safely ascertained without undue disturbance to the animal.

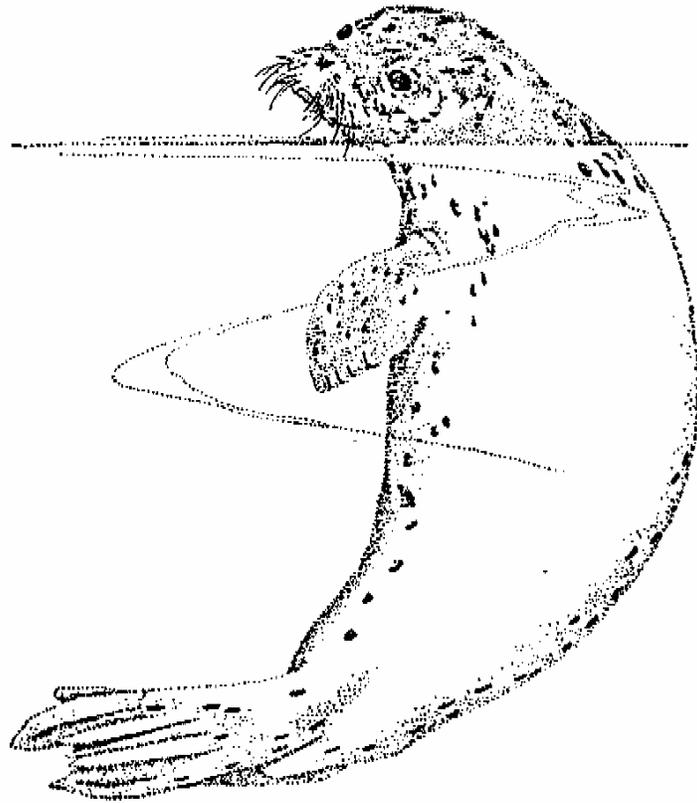
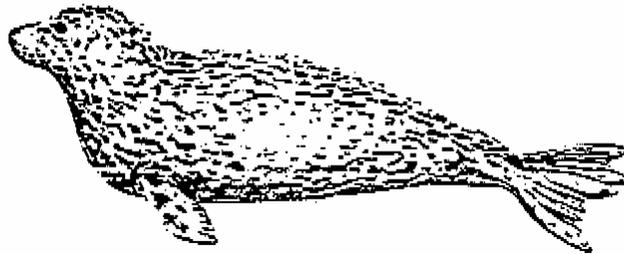
Condition of animal:

- How long has the animal been observed?
- Observe the degree of lethargy or inactivity.
- Does the animal appear underweight? e.g. ribs showing.
- How approachable is the animal? Does it attempt to move when you approach?
- Are the eyes gummy or crusty?
- Is there yellowish mucous in the mouth, nose, or ears?
- Are there visible signs of injury?
- Is the animal being harassed by people or other animals?

Very rarely, a dolphin or whale will beach itself. The mammal should **not** be pushed back into the water. Call MMC immediately with the location and description.

HARBOR SEAL

Phoca vitulina



HARBOR SEAL FACT SHEET

Classification

Scientific Name: *Phoca vitulina*

Belongs to the scientific order Pinnipedia (which includes sea lions and walruses).

Common name: Harbor, Spotted, Hair, or Common Seal

Habitat and Population Distribution

Shore-living animal which prefers estuaries, rivers and areas where sandbars, beaches or rocks are uncovered at low tide for hauling out. No definite migrations, but will move in search of food.

Physical description

Size: Harbor seals of all subspecies are generally of medium size; therefore, size estimates cover the range of lengths and weights considering all species. (Data indicates seals of the Alaskan population tend to be somewhat larger than the seals of the California coast.)

Pups at birth: 16-36 inches, 10-25 pounds. Males and females grow at the same rate until about 5 years of age when females stop growing. Males continue growing until 10 years of age. Average adult weighs 150-200 pounds and is 4-6 feet in length. Males are slightly larger.

Coloration variable: Glossy gray or charcoal gray, dorsal surface abundantly scattered with small black and white dots (dots are sparse on underside.)

General Anatomy

Plump fusiform shape streamlined by subcutaneous blubber.

Rounded head with blunt snout, face dog-like with nostrils close together forming a 'V', no external ear flap.

The forelimb digits have noticeable claws, and both fore and hindflippers are short in length and webbed. The hindlimbs cannot be rotated forward.

Short tail is tucked between hindflippers when swimming.

Front teeth are pointed and sharp - adapted for catching, tearing and swallowing as opposed to holding and chewing. Back molars are cusped for crushing shells and crustaceans; has 34 teeth.

Longevity: Life span estimated up to 29 years for some specimens in the wild although few ages have been recorded. Age can be estimated by sectioning teeth and counting annual ridges (bands of dentine and cementum).

Physical Adaptations to Cold, Marine Environment

Blubber -- thick layer

Provides thermal insulation.

Stores food energy for use during long fasts and lactation periods.

Increases buoyancy and fills out skeleton for body streamlining.

Pelts

Short, thick hair – outermost are thick, rather coarse guard hairs about 1 centimeter long which cover a dense inner stratum of hairs almost as coarse but half as long. Each guard hair has 4 or more underhairs attached to the root.

Molt -- Adults and pups molt following the adult's breeding season. Seals lose their hair gradually in patches. Females molt after pup birth and weaning. Pups molt a white coat while still in the uterus or shortly after birth and will not molt again until they are a year old. No eating or mating takes place during molting.

Sweat glands under skin secrete an oily fluid which helps to waterproof hairs.

High metabolic rate helps keep body warm.

Blood circulation -- seals have 1½ times the volume of blood than does man. The contraction and dilation of numerous veins in surface layers of flesh and blubber aid in thermoregulation and in diving. (See Section V, part C.)

Flippers -- each of the four limbs has five digits which are webbed. There is no thumb and none of the digits can be moved separately, but have to be moved as one. The foreflipper and hindflipper digits have narrow claws from 1-2 inches long which are bluntly pointed.

Eyes – fluids wash over the eyes continually to protect them but seals lack a nasolacrimal duct to drain eye fluids into the nose. This is not needed because of its mainly aquatic environment and this is why the eyes are rimmed with tears out of the water. Eyelids protect the eyes from injury.

Ears – the orifice closes by a muscle when the seal dives. There are no external ear flaps.

Diving ability

Seals dive for their food and have been observed to dive in excess of 300 feet. The record is 600' (206 meters). At rest, dives are 3-4 minutes. An adult can remain submerged for as long as 23 minutes. A maximum time of 30 minutes was obtained experimentally.

Nostrils – close naturally when diving and must be consciously opened to breathe. Pressure against the nasal cartilage by the moustachial pad and water pressure closes the nostrils. They are opened by a muscular contraction which lifts the moustachial pad.

Breathes out on a dive so that the amount of air in the lungs is reduced. This makes the animal less buoyant by collapsing the lower lung. The remainder of the air is then held in the rigid, less absorptive parts. The seal is then not as susceptible to the bends because it receives no air and retains less nitrogen.

The harbor seal has a greater volume of blood than land mammals its size. Therefore, more oxygen can be retained. The blood also has high myoglobin levels (oxygen carriers). Both of these factors help to prevent tetany, or "muscle oxygen deficiency" while the seal dives. Oxygen is conserved in diving by vasoconstricting all peripheral blood vessels and shunting the blood supply to vital organs – heart, lungs, kidneys, brain and intestine; the extremities use up available oxygen and then switch over to glycogen or starch stored in the muscles. The heart beat slows from 85-120 beats per minute to 6-20 beats under the water. When the seal surfaces, the heart beat shoots up to about 160 beats per minute. The seal also has a high tolerance level to carbon dioxide.

Locomotion--one of the major differences between seals and sea lions

In water - uses 4 webbed limbs, propelling by lateral movements of the lower body and hind- flippers. Foreflippers are used as a steering rudder. Can swim forward and upside down, but rarely backwards.

High speed (12-15 knots) – foreflipper pressed tightly against body; propulsion by swimming/lashing movement of the back half of the body. Hindflippers are spread wide but pressed together so they form a vertical rudder, moves with swift lateral thrusts of thighs and hindflippers. Can go short distances at dolphin-like speeds.

Normal or moderate speed (9 knots average) -- seal carries foreflippers close to body with tips projecting beneath. Hindflippers are lashed open and shut in wider swinging movements.

Slow speed – seals use foreflippers as stabilizers, swinging them in short circles with oar-like motion towards the body. Hindflippers are vertical, held apart and swung from side to side with a slow, twisting, graceful motion of the thighs, each flipper half-closing and opening alternately.

Land - movement fairly restricted on land. Moves by levering body forward in a series of caterpillar-like movements or by placing one hand after another alternately and pulling the body forward.

Food

Food is swallowed whole. If too large for one mouthful, the seal will thrash it into smaller chunks. Has rapid digestion, with soft fish digested in a few hours. Eats fish, squid, crustaceans, mollusks - between 5-20 pounds a day, depending upon the seal's size.

Senses

Sight – front layer of the iris is transparent and is crossed by a network of blood vessels; eye is lubricated with tears. Underwater the pupil expands into wide circle to let in as much light as possible. In the light, the pupil is contracted to a slit. Eyes are larger than man's and sight thought to be more acute than man's underwater but inferior on land. Blind seals have survived in the wild and in zoological collections for years.

Hearing – capabilities are keen and well developed for hearing underwater. Have responded in tests to sounds of 55 kHz, though pitch discrimination is lost at about half of that level. In the air, measured at 12 kHz.

Scent – sensitive out of water. Nostrils close underwater. It is not known how acute this sense is underwater.

Whiskers – touch thought to be very important in sensing fish in the darker, deeper waters or at night.

Upper lips of seal form a thick pad with many vibrissae deeply embedded on each side. These antennae continually grow and are highly tactile and sensitive. They are connected to the brain through a substantial nerve system.

Underwater, seals thrust pad in sweeping movement to and fro by pushing mobile upper lip in and out. Whiskers stand clear of face underwater except when moving fast. Any movement underwater sets up a vibration and current which is detected by the seal's whiskers. The whiskers are used involuntarily when out of the water.

Communication

Seals make hissing sounds, snorts, and sneezes. Adults are quieter than the pups, who vocalize often with their mothers. They occasionally make sounds at other seals in play and when threatened. Harbor seals also loudly slap the water and their body with their foreflippers.

Social behavior

Generally a shy and retiring species which spends 30 – 45% on land and 55 – 70% in the sea. In the water, adults are solitary and rarely interact outside of sexual encounters. On land, they haul out in loose groups with no structural social organization. Prefer to return to the same hauling grounds so they rarely wander far except in search for food. (It's actually complex).

Hauling ground behavior – rarely moves far from the sea, as seals are awkward on land. Harbor seals have a very low level of activity while on land. They do not like to be touching each other while in the grounds. If another seal does make contact, a flipper may be waved in the air at the intruder with an accompanying hiss or moan. Younger seals will play on the fringes of the group and stay out of the way of the adults. Seals, as they mature, become less playful and tolerant of close contact.

Sleep – will sleep on land or just below the water surface. If underwater, the seal will come up to breathe every 4 minutes or so.

Reaction to danger – on land, the herd will raise heads and look in direction of danger. Some may go into the water, while others may stay ashore until danger is imminent. If danger does not materialize, those in water may haul out again immediately. If in the water, the seals will dive sideways and slap the water with their foreflipper.

Aggressive interaction – growls with foreflipper raised in a threatening wave. More aggressive action is a head thrust or butt – a sharp, rapid extension and retraction of the neck with open mouth and growl. Fighting is rare.

Mating

Sexual maturity occurs between 3 – 5 years for the female and 5 – 6 years for the bull. Female will not mate while nursing pup, but will after the pup is weaned. At that time she enters estrus; mating takes place about 6 weeks after the pup is born, usually early fall. Seals prefer to return to the same breeding grounds.

Behavior

Spring – There is a period of especially boisterous play between couples, writhing and twisting, mouthing each other's napes, snarling and slapping the water with foreflippers, but mating act rarely is observed. This period ends with pupping season and begins again after molting is completed in the fall. The seals actually play all year round, but the frequency varies.

Fall – Mating is marked by much pre-coital play. A bull will approach a cow and she will respond with growls, head thrusts and flipper waving. The bull will rush and grab her by the back of the neck and a fierce battle with the cow may ensue before copulation. The male will ride the back of the female, clasping her under the foreflippers with his clawed foreflippers. They will roll and copulate by both twisting their hind-ends over sideways. Mating almost always occurs in the water.

Pregnancy and Birth

A female has one pup a year. Pupping season times vary with subspecies, but is usually around April/May at Jenner. The season tends to be later the further north the seals are. In the north Pacific, time for pupping varies with latitude. The more southerly seals pup first, and the Alaskans last. The fetal development takes 9-10 months, but because of delayed implantation, the period from conception to birth is about 11 months.

Delayed implantation – True pregnancy begins in November to December, about 60 days after mating. This retardation of embryonic development (characteristic of many marine mammals) means the fertilized egg (zygote) remains in blastula (ball) state of development for 1½-2 months, and then implants in the uterine wall where it begins development. This delayed implantation means the pup is born in the season of the best weather for survival. It also allows the mother time to get into good condition to nourish another embryo, as she fasts during lactation and may lose nearly 1/4 of her weight.

Birth – Seals will give birth in water, land, ice or sandbars, depending on location of seal herd. The cow will jettison the calf head first from the womb so hard that the umbilical cord is severed. The placenta is ignored and discarded by the mother.

Pups

Size and description – about 16-36 inches long and 10-25 pounds, lean, lanky and long. Usually molt white pre-natal coat while still in womb, so coat is dark at birth. Can swim from birth but remains very awkward on land for several weeks. Less than 50% of the pups will survive their first year.

Nursing

Female has two mammary teats on her lower abdomen which retract beneath the body surface except when in use. The sheet-like mammary glands are spread out like blubber over much of the body's ventral surface.

Seal milk is 45% fat, 10% protein, 45% water with traces of lactose and ash. This extremely high fat content in the milk is the reason the pups more than double their weight by their weaning time.

Relationship with mother – cow is devoted parent during the 4 – 8 week lactation period, but after that is no longer interested in her pup. She noses the pup often during this time and actively plays with it. The pup will ride on her back, nipping at her flippers and chasing its mother in the water. Mothers can recognize their pups by sound and smell and will not often adopt deserted pups.

Weaned pups – at the end of the lactation period, learns to eat prawns, shrimp and small rockfish. They do not wander far from the sea, river, estuary or sandbank frequented by the adults. In the spring, pups engage in the same courtship rituals as the adults, often with others of the same sex.

Major Reasons for Mortality

Predation

East coast seals extremely wary of humans as potential enemies. The local harbor seals at Jenner are unusually tame.

Fishing competition - seals do eat salmon, so bounties were placed on them because of the reputed damage they did to the salmon fishery. Seals were hunted extensively for this reason during 1940-1960 and soon abandoned some traditional hauling grounds.

Seals are now protected by law in the U.S. and British Columbia.

Natural Causes

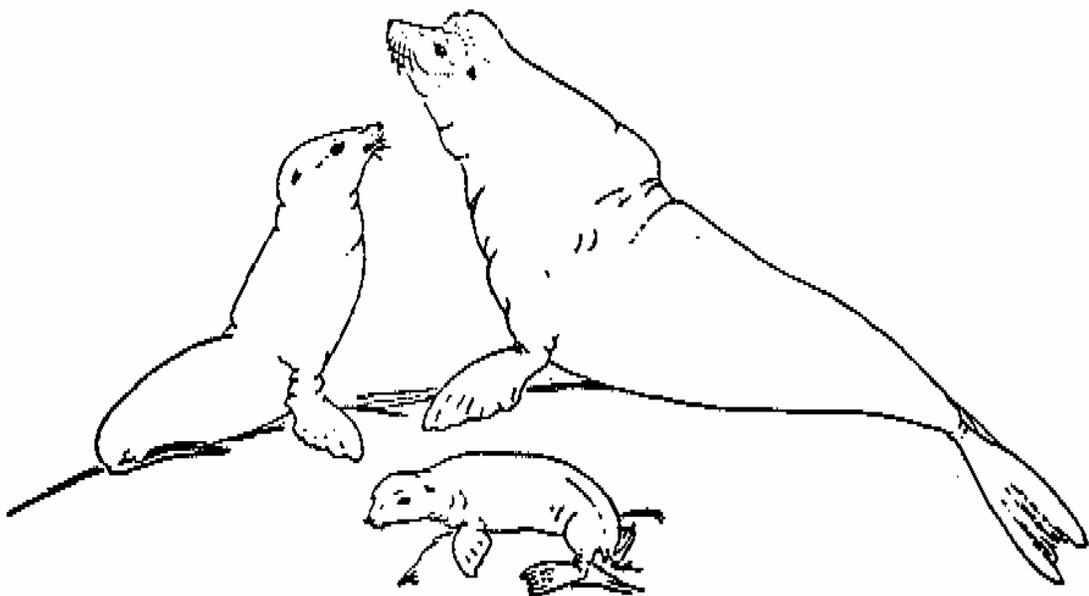
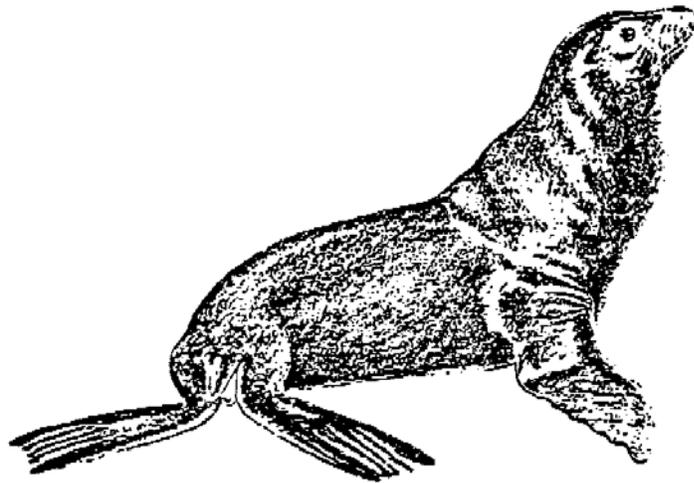
Parasites – have to occur in large numbers in an animal to do appreciable damage. Organs and the common parasites that infest them are: the gut - nematodes, acanthocephalans, trematodes, cestodes; the heart, lungs, blood vessels - nematodes; nasal cavity - mites; skin - ticks.

Seal pup mortality is extremely high in the first year. Causes: Starvation, abandonment, washing away by heavy seas from hauling grounds, bacterial infection leading to lung infections, predators.

Predation by killer whales and sharks.

CALIFORNIA SEA LION

Zalophus californianus



CALIFORNIA SEA LIONS

(Zalophus californianus)

Playful and sociable, these sea-going mammals range from Baja California north to British Columbia. Inhabiting coastal waters, sea lions frequently come ashore to rest and sunbathe at traditional haulouts. In the sea, they can be seen in groups or singly. At Jenner, they fish individually but assemble in rafts to bark or rest. The California sea lion's sexual life centers around the offshore islands of southern and Baja California. Here, in July and August, California sea lions gather to mate and give birth. During the fall/winter months, young males and adult bulls generally move northward along the coasts of northern California, Oregon, and Washington, while the females and other young remain behind. The bulls can be recognized by their size (8 feet and up to 600 pounds), by their dark brown coats, and by a crest or "bump" on the forehead. The females are smaller (6 feet and about 200 pounds), with lighter coats.

Their sleek, agile bodies are adapted both for life on land and in water with narrow, pointed snouts, smooth muscular torsos and slim tapered flanks, the California sea lion is a sleek, streamlined animal adapted for moving smoothly and swiftly through the water. Propelled by their long, wing-like foreflippers, sea lions are naturally able to turn, leap and somersault with nimble grace. Unlike seals, sea lions have small external ears and use all four flippers to climb rocks and lumber on land. The two rear flippers can be pulled under their bodies to be sat or stood on.

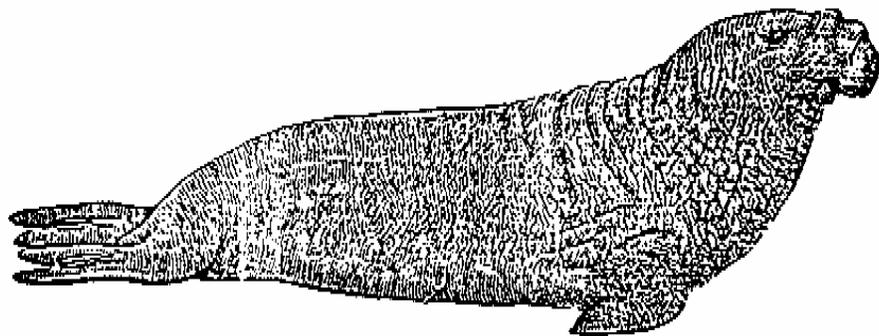
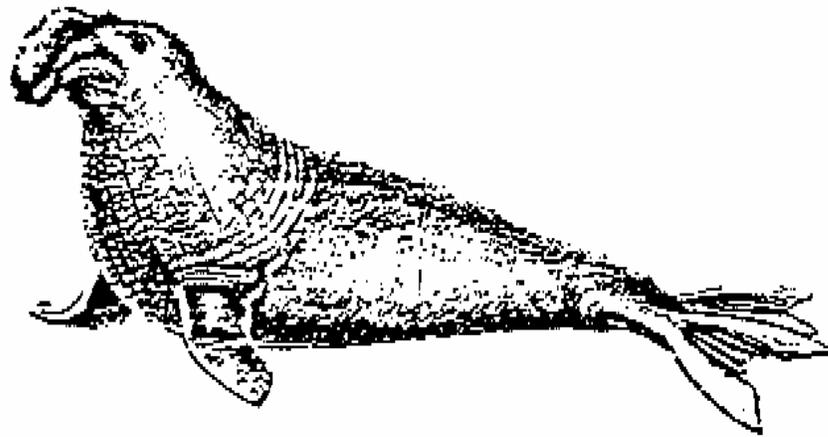
A sea lion colony is noisy, with continuous barking and activity throughout the day and night. Sea lions produce and can distinguish a wide range of vocal sounds. The large bulls bark to defend territories during the breeding season. Reaching maturity at about six years, the bulls often battle for control of their territories and the gregarious clusters of females in the crowded rookery-nursery. Here, in June and July, the pups are born. Female sea lions, returning from feeding at sea, make use of repeated recognition calls to locate their nursing pups in the teeming throng.

Pups develop quickly on land, then take to the sea to develop survival skills. Born with their eyes open, the precocious pups are soon wandering about the rookery, investigating and playing, returning to their mothers only for nourishment. Weighing between 12 and 14 pounds at birth, the pups grow rapidly on their mother's rich milk (36% fat, 14% protein, and no sugar). By 2 months of age, they are feeding on small fish in the shallow tidal pools. Playfully chasing each other through the surf, the pups develop their swimming, diving and food catching skills. Mortality rate may be between 40 to 60% during the pup's first year.

As warm-blooded, air-breathing mammals in a hostile aquatic environment, the first year of life at sea is the most difficult for young sea lions. Finding sufficient food, withstanding disease and the infestation of parasites, surviving storms at sea and attacks by predatory sharks and killer whales are all potential hazards faced by young sea lions. In captivity, the life span of a sea lion is about 15 to 25 years. In the wild, few animals over 15 years are seen. The California sea lion's naturally inquisitive and playful nature, their ability to move easily both in and out of the water, and their intelligence have contributed to their success as show animals.

NORTHERN ELEPHANT SEAL

Mirounga angustirostris



ELEPHANT SEALS

(*Mirounga angustirostris*)

Once endangered, mammoth elephant seals now crowd the beaches of the offshore islands of California and Mexico. They have also established a number of mainland haulouts, the most famous at Año Nuevo. Most recently, sightings have been made at Jenner.

Tolerant of crowding, elephant seals congregate in large colonies for breeding and molting. The large prostrate forms of northern elephant seals can be seen on the beaches of the offshore islands of California and Mexico. Because they are unable to rotate their hind flippers under their ponderous bodies when ashore, they must crawl awkwardly on their stomachs with an undulating motion resembling a caterpillar. Since they can't climb well, they are usually found on rocky ledges as are the more agile California sea lions, but tend to be limited to the island's few flat sandy beaches or pebbly coves. They can climb Bodega Rock, so it is not impossible to see them in a rocky area.

Hardly moving, elephant seals doze in the sun and lazily scoop sand onto their backs with their short front flippers. This sand-flipping behavior helps them to keep cool and may discourage insects. Brief squabbles erupt occasionally as animals enter or leave the crowded beach areas, but activity is usually at a minimum, except during the breeding season.

Excellent swimmers, elephant seals are adapted for long periods of underwater feeding. Although awkward and slow on land, in the water these seals are streamlined, powerful and amazingly graceful swimmers. Submerging to depths of up to 4,000 feet, elephant seals may remain below the surface for as long as 60 minutes. Typical dives are 20 minutes, as the sea elephant searches for sharks, ray, or deep-water fish. To locate food in the sea's depths, elephant seals depend upon their excellent hearing and sensitive whiskers. In addition, their large eyes are adapted for picking up what little light is available to detect shadowy passing forms.

Only the largest and strongest males control breeding territories and sire the young seals. Unlike most seals, male and female elephant seals are quite different in size. A mature bull may weigh 4,000 to 5,000 pounds and measure up to 16 feet. The females weigh up to 1,500 pounds and measure from 10 to 12 feet. During the mid-winter breeding season, the largest and strongest males establish territories and collect harems of a dozen or more females, which they vigorously defend from other males.

Confrontations between bulls are for dominance rather than fights to the death. In most cases, the harem master warns the intruder by first inflating his large nose and issuing a trumpeted challenge. Usually this is sufficient warning. However, heavily scarred bulls of equal size engage in chest-to-chest combat which may last 1 to 2 hours. Using their long canine teeth, they bite their opponent's neck until one is defeated and retreats.

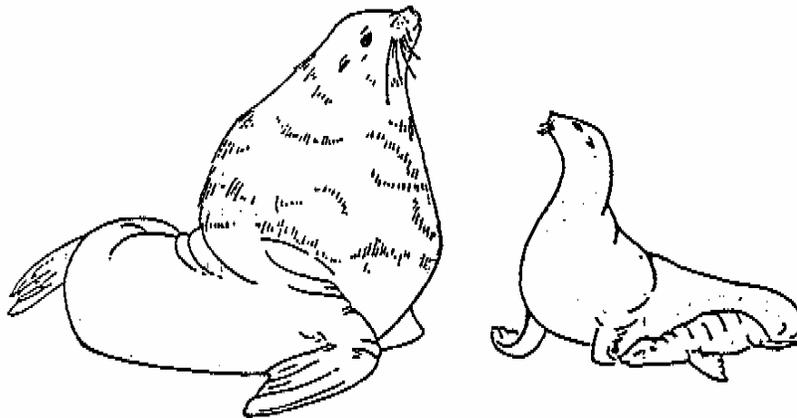
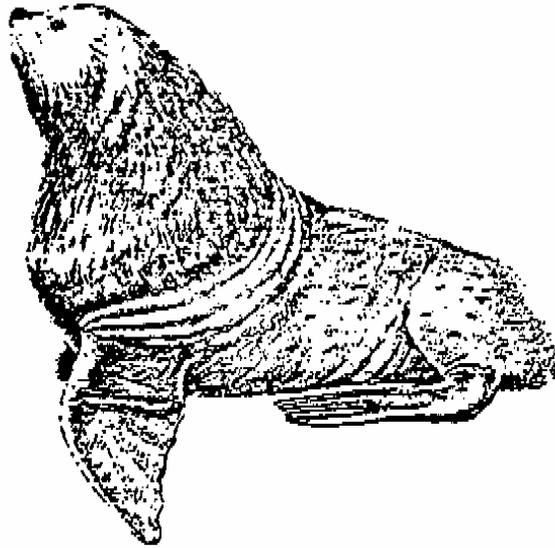
Black-coated pups grow quickly into silver-coated adolescents. Elephant seal pups, with their loose fitting, woolly, dark coats, are usually born between December and February. They are about 4 feet at birth and weigh between 50 to 60 pounds. In the first four to six weeks, the pups nurse frequently on fat-rich milk (55% fat), attaining weights up to 400 pounds, after which they are weaned. They then shed their juvenile coat for the silvery gray coat of an adolescent and venture into the water for the first time.

Elephant seals undergo a period of annual molt, shedding both the hair and the outer skin. They do not feed during this time but live off their thick layer of blubber. When the molt is completed they return to the sea to spend long months feeding alone, preparing for the winter when they will again gather at their island breeding grounds.

Once taken in large numbers for their oil, elephant seals have made a dramatic comeback. Because of their large size, thick layer of blubber and tameness, elephant seals were easily taken in large numbers in the late 1800s. By 1907, less than 100 known individuals remained. Protected by the Mexican and Californian governments, their numbers increased steadily. Today, the present population is estimated at 120,000 or more. However, due to the shortage of suitable breeding beaches on the rocky islands, overcrowding and disease now limit continued population growth.

STELLER SEA LION

Eumetopias jubatus



STELLER SEA LIONS

(Eumetopias jubatus)

Largest of the sea lions, stellers inhabit exposed rocky shores of the North Pacific. With a population that has dropped to approximately 80,000 (from estimates of 250,000 to 300,000), the Steller sea lion is now classified as threatened. The range of the Steller extends from southern California's Channel Islands north to Alaska, along the coasts of Kamchatka, northern Japan and Korea, with the center of abundance in the Aleutian Island chain. Opportunistic feeders, Stellers feed on squid, octopus and a wide variety of fishes.

Stellers are well adapted for coming ashore on steep rocky terrain. With a thrust of their powerful foreflippers, they can easily propel themselves out of the water, 5 to 10 feet up the side of a precipitous ledge. They use their leathery flippers to grip and pull themselves up the slippery, wave-splashed slopes and along narrow ledges to find resting places above the crashing surf. Shaded overhangs and damp depressions are especially sought, as overheating can be a problem for these well-insulated aquatic mammals. Stellers can be seen riding waves at Fort Ross.

Even at sea, Steller sea lions are social animals, often feeding and resting in groups. When feeding at sea, groups of Stellers repeatedly submerge in synchronized dives. With powerful strokes of the foreflippers and necks outstretched, they glide in swift pursuit of their underwater prey. When not feeding, Stellers are frequently seen resting in compact floating raft formations, with one flipper extended up out of the water to catch the warmth of the sun's rays.

Coarse-maned bulls aggressively defend their breeding territories. In May, with the coming of spring in northern California waters, mature male Stellers begin to claim individual territories and breed at Año Nuevo and at Fort Ross. Aggressive bluffing behavior is characterized by nodding the head, roaring, snorting, and lunging toward the would-be intruder. As breeding activity intensifies, more pushing and biting contests occur.

The mature males weigh over a ton and measure about 11 feet. They are distinguished by their large size, cork-colored coats and thick, scarred, muscular necks covered with a mane of coarse hair. Females are smaller, weighing only about 650 pounds and are 74 to 8 feet long. The majority of the pups are born in July and August. Weighing about 44 pounds and measuring 3 feet at birth, the pups develop rapidly. To survive, Steller pups must quickly learn to recognize their own mothers and maneuver over steep ledges. For the newborn pups, a Steller sea lion rookery is a harsh environment of slippery, steep rocks, crashing waves, and aggressive adults. Shortly after birth, pups learn from their mothers how to climb rocks. Vocal encouragement is used, or, if the terrain is too difficult, pups are lifted by the loose skin of their backs.

Female Stellers will nurse only their own young and are actively aggressive towards other pups attempting to approach them, fiercely biting and tossing them into the air. To survive, a pup must learn early to distinguish its own mother's call from all the others. Steller pups may nurse for up to 18 months and female stellers are often seen with both a newborn pup and a yearling.

MOST COMMONLY ASKED QUESTIONS REGARDING SEALS

1. How long have the seals been here?

We have been told by long-time local resident Elinor Twohy that the harbor seals displaced the local sea lion population in 1974.

2. Do they stay here all year?

With the exception of several weeks in the fall, there is a constant presence at the spits.

3. How much do seals weigh?

Average adult weighs 150-200 pounds and is 46 feet in length. Males are slightly larger. Newborns weigh from 10-25 pounds and are 16-36 inches long.

4. How long do they live?

Estimated life span for a seal is up to 29 years.

5. What do they eat?

The major part of a seal's diet consists of flatfish, octopus, hake and hagfish (see Foraging Study by Linda Hanson). Minor parts of their diet include squid, salmon and rockfish. They can be described as nocturnal marine predators.

6. Why do they lie on the beach so much?

Hauling-out is an important part of the daily routine. Seals on the beach are resting, regulating body temperature, and re-oxygenating their blood.

7. How often do they mate?

Seals will mate once a year, usually six weeks or so after a pup is born.

8. How long is the gestation period?

After being impregnated, seals undergo 2 months of delayed gestation. Nine months after this delayed gestation, they give birth.

9. How long do pups nurse?

Pups will nurse from 4 to 8 weeks and more than double their weight in this time period.

10. Can pups swim at birth?

Yes, they can, but they will often need to be assisted by their mother. You will often see them resting on their mothers' backs while still in the water.

11. How long do pups stay with their mothers?

Until the end of lactation period, usually about 8 weeks after birth. Seal Watchers have reported seeing year-olds remaining close to other adults, possibly their mothers, prior to birth of other pups.

12. Where are they born?

Seals are usually born on land though they may be born in water, decreasing chances of survival and indicating stressful interferences.

13. How can you identify newborns?

Premature newborns have white coats. Full-term pups molt their white coats while still in the uterus and are born with a dark coat. You can sometimes see where the umbilical cord was attached. A newborn seal is significantly smaller than the rest of the population.

14. How long can seals hold their breath?

Twenty to thirty minutes.

15. How deep do they dive?

Approximately 600 feet.

16. Where do they sleep?

They prefer to sleep on the land, but often are forced to sleep in the water (high tides, etc.); if so, they wake up frequently to surface and breathe.

17. Do sand and mud bother their eyes?

Glands steadily lubricate their eyes with tears; their eyes are also protected by a membrane which is like an inner eyelid that effectively wipes away sand and debris,

18. What is the difference between seals and sea lions?

Sea lions have visible ear flaps, their call is a noisy bark, they "walk" with all four flippers, their heads have a more dog-like muzzle, and their flippers are designed for different locomotion.

Pacific Gray Whale

Eschrichtius robustus

Gray whales are often seen off of the coastline. These whales are believed to be the oldest of all whale species. The gray whale is one of the ten species that are Baleen. Baleen whales get their food by straining very small creatures through their bristly teeth. In this way, one of the largest creatures on earth survives by eating some of the smallest creatures. Gray whales mainly eat plankton, krill, small fish, and crustaceans.

These whales grow to be 40-50 feet long, weigh 30-40 tons and have a layer of blubber approximately 6-10 inches around their bodies to protect them from the cold waters of the Pacific Ocean. Gray whales are well adapted to coastal habitats. They travel at an average of six miles an hour, have good eyesight that they use both below the water and above when they breach. Whales are usually found in coastal waters that are no more than three hundred feet deep.

Gray whales have one of the longest migration patterns of any creature. They travel 10,000 miles annually. During the fall they can be found feeding in the North Pacific. They begin their southbound migration to Baja California in December and usually complete the trip by early February. Once in Baja, the whales mate and calves are born. Usually 10 males will pursue a single female. This chase continues until all but two males are left. These two males then jockey for a mating position with the female. The following year calves are borne after a twelve to thirteen-month gestation period. They are about fifteen feet long and weigh approximately 1 ton. They survive by being nursed with milk from the mother that contains 55% fat. On this diet they thrive and they can be seen swimming with their mothers on the long trip north.

Whale watching is a popular activity for people but our relationship with the whale has not always been a friendly one. Whales were hunted extensively between 1843 and 1946. Whales produced many items that humans needed during that era. Lamp oil was made from their blubber, items like combs and corsets were made from their Baleen and dog food was made from the remaining flesh. As a result of this hunting, their population dropped nearly to the point of extinction.

Fortunately, an international treaty that forbids any country to engage in whaling now protects gray whales. However, some Native Americans are allowed to hunt whales in limited numbers by permit only. As a result, the gray whale population has greatly increased. You can now see these beautiful creatures as they migrate up and down the coastline. One of the best places to view the migrating whales is at the tip of Bodega Head, just west of the town of Bodega Bay.

Great White Shark

Carcharodon carcharias

Without a doubt the great white shark is at the top of the food chain on this portion of the coastline. It is the largest of all flesh-eating fish and is known for its great size, aggressiveness, and unpredictability. Although similar to all sharks in many respects, the Great White has some unique features that make it a very effective predator.

One of the most distinguishing features of this shark are its serrated teeth. These teeth can grow to be 2-3 inches long. Great white sharks are believed to be living fossils. By examining ancient sharks teeth, scientists have determined that the Great White's ancestors were three times as large as they are today (that would mean they were nearly 45 feet long).

The jaw of the great white is constructed so that it can open not only vertically, but also to a limited extent horizontally. The shark can vary the size and shape of its mouth to accommodate a variety of prey. Combined with extremely sharp teeth, and highly-developed jaw muscles (which can exert nearly 40,000 pounds of pressure per square inch) it can easily bite off a 25-30 pound piece of its prey. The great white is however, unable to chew and must swallow its food whole. Once inside the stomach, gastric juices that are strong enough to corrode steel go to work on whatever has been swallowed.

After locating its target, with a variety of highly developed senses, the shark thrusts itself forward with strong, powerful side to side sweeps of its large crescent-shaped tail. Instants before striking its prey, the shark's eyes roll back into its head and a special eyelid moves into place to protect the eye from damage.

Although the shark's teeth are numerous, they are not firmly set into the jaw. Shark's teeth are set in their gums and can be lost very easily if the shark bites on something hard. To remedy this, sharks have a "conveyer belt" of new teeth that continually replace teeth that are broken off.

Although sharks are known to be in this portion of the coastline, they are rarely seen. The best places to look for them are in areas with high concentrations of seals and sea lions. Sharks have been spotted taking seals at the entrance to Bodega Bay and they are also seen occasionally near Goat Rock Beach. The best chance to see them is during salmon season when all of the local fishing boats are close to shore. At that time the large population of fish lure the seals out and the sharks in turn follow the seals.

Shorebirds



Brown Pelican adult



Juvenile Brown Pelican



Brant's cormorant



Double-crested cormorant



Pelagic cormorant



Western gull



Left: Mew gull

Right: California winter plumage

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Herring gull
non-breeding

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Heerman's gull
1st year juvenile



Ring-billed gull
Adult breeding plumage



Caspian tern



Elegant tern



Common loon
Notice flat head

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Pacific loon
Notice throat patch

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Western grebe
Courtship display

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Western grebe
Notice eye is in the
dark



Clark's grebe on the left
Western grebe on the
right



Surf scoter male



Common merganser
male



Common merganser
female

Birds of Prey



Osprey



Red-tailed hawk



Common raven

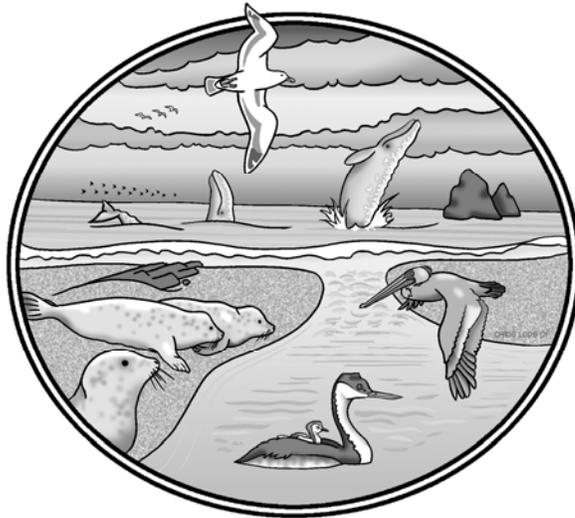
Turkey Vulture

www.vulturesociety.homestead.com/photos



PART IV

JENNER HISTORY



WILLOW CREEK HISTORY



HISTORY OF THE JENNER AREA

By Elinor Twohy

NATIVE AMERICANS (They prefer to be called “Indians,” we’re told)

We know that Pomo Indians had been living here for 3,000 years; however, archeologists have recently uncovered significant evidence in the middens at Duncan’s Landing which may prove that Pomos were here for 10,000 years.

“Pomo” is an overall name covering six language groups and several different tribes. The local tribe, known as the Del Rio Indians, was friendly with their neighbors from around Bodega Bay, the Miwoks. From a study of the middens, we believe that they had ceremonial gatherings at Duncan’s Landing.

PENNY ISLAND AND SANTOS

In the 1920s the two Penney brothers owned and lived on the twenty-nine acre island that is in the middle of the river, directly in front of the town of Jenner. One brother was drowned in an accident at sea. When the other brother became ill, he wished to live the rest of his life on the island and to be buried there.

Joe Santos had come from Guam, married a local Pomo woman, built a house near the river mouth on Goat Rock beach, and started a family. Joe Santos agreed to carry out Penney’s wishes, and in return the island was deeded to him. Joe then built a house on the island, where the Santos family grew fruits and vegetables, raised dairy cattle, and sold their produce to the townsfolk of Jenner and Monte Rio. The Santos family lived on Penny Island until 1948.

One daughter, Josephine Santos Wright, born in 1904 in the original house on Goat Rock beach, still resides in Jenner and provides us with authentic historical information.

In 1975 the island was finally acquired by the State of California Department of Parks and Recreation. It has become a sanctuary for animals and birds; recent sightings include foxes, a bobcat, a mink, great horned and barn owls, and both white and brown pelicans.

RUSSIAN PERIOD

Between 1812 and 1841 the Russian colony at Fort Ross dominated the coast as far south as Bodega Bay. Their primary interest was in hunting sea otter for the lucrative pelts, but the necessity of feeding their people at the Fort and in the Alaskan colony led to the planting of crops, primarily potatoes and wheat, in a number of locations back from the foggy coast. A prime spot was their farm in Willow Creek.

SUTTER; SUBSEQUENT LAND GRANTS

The Russians left when the sea otter population was depleted. John Sutter, of Gold Rush fame, bought the Fort for the stock and equipment. His claim over the land was rejected by the Mexican authorities, who legally controlled California until 1848. A few years later the land was divided into large grants; Muniz Rancho extended from Timber Cove to Duncans Mills; it was given to Manuel Torres by Governor Pio Pico in 1845. A 5,000 acre portion of this ranch was purchased by John Rule in 1867.

RULE RANCH

The thousands of acres directly behind the town of Jenner are still known as Rule Ranch. John Rule built a large house on the crest of the hill and a sawmill at Russian Gulch in 1869, with a capacity of 40,000 feet of lumber a day. John Rule died before the mill was ever operated, and it was dismantled.

His wife Elizabeth ran the cattle ranch until it was taken over by their son Charles. Under Charles the ranch prospered; there were prize Herefords he shipped to Hawaii, horses bred for show, dairy production ranked high in the county.

Charles Rule sold some land to A.B. Davis for a lumber mill site (where the Jenner-by-the-Sea building now stands). Soon there was an operating mill and enough workers and their families living in "mill cottages" to consider this a real town. The mail had been delivered from the Duncans Mills post office, but in 1904 Jenner got its own post office and Rule became the first Postmaster on April 4th of that year.

JENNER SCHOOL

In 1905 the Jenner School was started for the children of the lumber mill workers. For a time the school was at Russian Gulch, but later Charles Rule donated some land at Jenner and the school was built with lumber donated by the A.B. Davis Lumber Company. The people of Jenner pitched in to do the construction work themselves. The building erected was a large one, as it also served as a community center. It still exists (on Willig Drive), but is in a rather dilapidated condition.

Lucile Cuthill, known as "Teach," taught in the Jenner School over a 46-year period. As a young woman each school day she rode over the hills on horseback from Cazadero to Jenner. (There were a few interruptions in her teaching career, i.e., she lived in San Anselmo from 1921 to 1925). Some current Jennerites are alumni of that one-room schoolhouse and credit "Teach" with their early education.

The last class was in 1969; one student was graduated that year.

Teach's husband Bill was Postmaster in Jenner from 1915 to 1919, and Bill's brother Alexander ran the ferry that was the only method of crossing the Russian River between Willow Creek and Jenner for the many years before the bridge existed. He worked as a ferryman every day, rain or shine, except when the river was flooded.

ELIJAH K. JENNER

The question of how Jenner got its name brings us to Elijah K. Jenner, a dentist in Healdsburg who enjoyed hunting and fishing, and made the island his own. He probably lived there part-time. We know that his son Charles tended cattle on the island.

Another, rather picturesque, explanation is that an aspiring writer, Charles Jenner, built a cabin on Rule's land, calling the spot Jenner Gulch, and that the name was later used for the town. Extensive research doesn't validate this theory.

The U.S. Government issued Possessory Claims granting legal ownership to "squatters." In 1859 Jenner was given the island (later named Penny Island). We believe that when a name was needed for the new town, that of the island's first owner was selected.

JENNER BOATHOUSE

The first structure on this site was a wharf that served as a launching point for small boats.

The Mecum family bought the Jenner-by-the-Sea resort in 1946. In 1947, one of the Mecum sons, Cecil, Jr., built the boathouse so he could start a boat-building business under the supervision of David Easdale, who was retired and living in Jenner.

The Easdales, John and his son David were famous for their beautifully crafted canoes and rowboats. John had invented a unique type of mold, which he used for shaping his boats, and the workmanship was superb. When a fire completely destroyed their Guerneville Park boatyard, Easdale was able to save the forms and bring them to Jenner, where they were used to continue the tradition of constructing fine boats. Their logo read: JENNER BOAT COMPANY, MECUM BUILT BOATS, EASDALE DESIGN, JENNER, CALIFORNIA.

When the main building in Jenner - the historic old mill - was totally destroyed by a devastating fire on Sept. 9, 1949, Cecil, Jr. took time off from his boat business to help his family rebuild it.

In the 1950s the boathouse and dock were used by many fishing boats. This was a pristine estuary and the fishing was excellent. Over the years many factors have contributed to the decline of the fish population.

1965 to 1973 was the period of what is known as the Jenner Controversy, a battle over the proposed project by Utah Construction Company to dredge the river mouth and remove all of Penny Island for gravel to be barged to San Francisco for the Bay Area Rapid Transit construction. When Utah pulled out, the project was pursued by American Leisure Lands and its sister companies Northern California Aggregates and the real-estate arm, Russian Harbor Corporation, that planned an 8,000-acre

subdivision that included townhouses and a shopping center, as well as development in Willow Creek.

Years of County and State hearings ended with the defeat of the developers and finally freed the land for eventual purchase by State Parks. Penny Island, and then the Boathouse, became the property of DPR in 1975. In 1982 the Boathouse was rebuilt, in part by a \$10,000 grant that was given with stipulation that Jenner citizens would assist with the labor and afterwards volunteer to staff it for a period of five years as an interpretive center. At the expiration of the formal agreement (signed in 1983) it was verbally extended with the same terms in effect. In 1991 the Boathouse was again rebuilt into its present configuration.

JENNER COMMUNITY CLUB

The Jenner Community Club, originally known as the Seaside Neighbors, was started by the women of the town for the benefit of the Volunteer Fire Department. Their purpose was to raise money to build a firehouse, for which they staged events such as bazaars, bake sales and dances. Soon the group incorporated as the Jenner Firemen's Social Club, and later as the Jenner Community Club.

After many long years of staffing the Visitor Center, the Jenner Community Club welcomed a new partnership with Stewards of Slavianka in 1997 and now works cooperatively in what has become an expanded program with increased opportunity to serve the public and at the same time enhance revenue for Parks.

January, 2001

PART V

JENNER VISITOR CENTER OPERATIONS



OPENING PROCEDURES

Using combination, get key out of lock box.
After you open the door, replace key and close box.

Once inside, lock door until ready to open for visitors.

Turn on lights as needed. Switch is located on the wall between the doors.

Heat should be on low to protect specimens. Heaters are behind the sales counter and the specimen cases. Turn it up if you need to; there is also a portable heater you may plug in.

Open blinds, leaving those near T-shirts closed and angled upward to prevent sun damage.

Using combination, unlock cabinet and take out:

Radio	In charger; make sure it is on. See "Radio Procedures" for detail.
Donation box	Place on counter
Guest book	Place on counter with pen
Clicker	Should be on counter or in cash box
Money from cash box (coins may be in cash register)	
Accounting form from file	

Using key, turn on register; turn key right to **REG**.

Using gray # keys, enter daily number:

Friday – 1 Saturday - 2 Sunday – 3 Monday – 4 Tuesday – 5 Wednesday – 6
Thursday – 7

Press **CLERK # key** and **#/No Sale key**. Drawer will open.

Count cash and coins, completing top part of accounting form.
If your count is over or under \$75, recount once. Do not fret.

In the log book, complete AM shift portion.

Place accounting form in log book.

If you want to wear a vest, they are under the counter.

Unlock door(s); there is usually a rock on the deck to prop open the door.

Place open signs on hangers (1) by the road and (2) on the building.
Hang the windsock on a hook along the roof.

GENERAL DAILY PROCEDURES INFORMATION

AM/PM shift information	<p>The Visitor Center is open 10 a.m. to 4 p.m. Typically, the AM shift is 10 a.m. - 1 p.m. and the PM shift is 1 - 4 p.m.</p> <p>In order to take care of opening and closing procedures, volunteers should plan on arriving 10 - 15 minutes before the "start" of their shift and leaving 10 - 15 minutes after the "end" of their shift.</p> <p>During a shift change, make sure the volunteer coming on duty knows where to find the clicker, radio, accounting form, and door key.</p>
Bathroom	<p>Very small holding tank; not for public use! Keep door closed during open hours. Public restrooms are outside in the boat launch area. Call Salmon Creek Ranger Station if restrooms need servicing.</p>
Donation Box	<p>Leaving about \$5 in the box is fine. If there is more than \$5, put it in an envelope, date it and mark it "donation box." Place envelope in safe.</p>
Change	<p>If you need change during your shift, lock the door(s) and ask at the deli or gas station.</p>
Clicker	<p>Count each visitor; closing volunteer will note daily total in log book.</p>
Emergencies	<p>If you have a true emergency, call 911. Emergency numbers for rangers are on the phone list in the volunteer reference manual. There is a manual under the phone regarding emergency procedures. Review this when you can.</p>
Inventory	<p>If we are low on an item, note it on the shift log sheet.</p>
Lost and Found	<p>Report all lost and found items to Salmon Creek rangers.</p>

Notebooks

Log Book

Located under counter
Daily shift log sheets
JVC volunteer calendar/notes to volunteers

Volunteer Reference Manual

Located under counter. For use in answering questions.

Sales Procedures/Inventory

Located in cabinet.
Cash register and credit card procedures
Inventory list with PLU numbers and prices

Activities/Restaurant Notebook

On counter for visitor reference

Phone

865.9433 For incoming calls; local calling area for Jenner is very limited.

Radio Procedure

JVC volunteers are the communications lifeline for Seal Watch volunteers on the beach at Goat Rock. From March through Labor Day, Seal Watch depends on JVC volunteers to answer radio calls. The radios are to be used for emergencies on the beach and for asking JVC to call a ranger or the Marine Mammal Center. You may hear other traffic on the radio.

Refer to "Radio Procedures" for specific directions.

If you have problems with the radio or need batteries, make a note in the log book on your shift report. **Make sure radio is turned off before it is put away at the end of the day.**

Reference books/Maps

Located under the counter

T-shirts and Sweatshirts

Samples are on rack; additional inventory/sizes are on the shelves.

Volunteer Schedule

In log book; sign up for shifts.

CLOSING PROCEDURES

Empty trash.

Bring in sign from roadside.

Bring in sign and windsock from side of building.

Using combination, open lock box and get key.

If you need change, lock door(s) before going to the deli or gas station.

Leave \$50 for the next shift, mainly ones, a few fives and \$4-5 in assorted change.

Close and lock door(s).

Close all shades, angled up.

Place these items inside the cabinet: the radio replaced in gray bag (make sure it is turned off); phone, donation box, and guest book.

Complete daily accounting. Enter visitor total and sales total on daily log sheet.

Envelopes are in the hanging file in the cabinet. The small brown envelopes are for coins; all of your accounting paperwork and your deposit go into a business size envelope.

Run daily clerk report – See accounting chapter in manual.

Sign off cash register – Press “0” and press **CLERK #** key.

Put \$50 in cash box (coins may be left in register).

Turn off register and put key in cash box.

Leave clicker by the register or put in cash box.

Put cash box in cabinet.

Lock cabinet; secure lock.

Put deposit envelope in safe.

Tidy up if necessary -- on Sunday afternoon move card racks to "sales area" near books and T-shirts. Clear "complimentary information" table of items not in the rack.

Adjust heat to low on units behind the sales counter and the specimen cases.
Unplug portable heater.

Turn off lights.

Lock both doors. Return key to lock box; secure lock.

RADIO PROCEDURES

JVC volunteers are the communications lifeline for Seal Watch volunteers on the beach at Goat Rock. From March through Labor Day, Seal Watch depends on JVC volunteers to answer radio calls. The radios are to be used for emergencies on the beach and for asking JVC to call a ranger or the Marine Mammal Center. You may hear other traffic on the radio.

1. If necessary, attach the antenna to the top of the radio.
2. Turn the radio on by rotating the on-off volume switch clockwise until you hear a click.
3. Rotate the P/L squelch control knob (next to the antenna) counterclockwise, but not past the click. When you hear static noise, slowly rotate the knob in a clockwise direction until the noise just disappears.
4. Keep volume high enough that you will hear calls.
5. To speak into the radio, hold it upright about 3-4 inches in front of your face. Keep the antenna away from your face and eyes. Press the PTT switch (Press-To-Talk) and hold it down as long as you are talking. It is located on the antenna side of the radio.
6. Release the PTT to hear Seal Watch.
7. When you have ended your radio call with Seal Watch, leave the radio on and set it on the window sill or somewhere you can get to it easily. Monitor radio traffic for check in and emergency calls from Seal Watch.

Seal Watch will check in at approx. 11 am and 2:30 pm.

Typical check-in: SW "Hello, this is Seal Watch. Over."

JVC "Hello, Seal Watch. Over."

Seal Watch will report location and people on duty.

JVC "Copy. Have a good day. Out."

Make sure radio is turned off
when it is put in the charger at the end of the day.

PART VI

ACCOUNTING PROCEDURES



Accountability and Financial Management

Stewards of the Coast and Redwoods (Stewards) is a Cooperating Association that has a contract with California State Parks. One of the agreements in our contract is to staff and operate the Visitor Centers in our district. Our contract stipulates that we must uphold sound business and financial management practices.

Stewards is also regulated by other state and federal agencies:

- State Board of Equalization
- State Franchise Tax Board
- The Attorney General's Office - Charitable Trusts Section
- California Secretary of State
- Internal Revenue Service

Stewards can be audited by any of the government agencies listed above. Because of the increase in revenue that Cooperating Associations throughout the state are raising, they are being audited more and more. To comply with governing laws, Stewards is making every effort through procedures and volunteer training to become more accountable and professional in its operations.

**Stewards of the Coast and Redwoods
Daily Accounting for Visitors' Centers**

Date: _____

Name: _____ Time In: _____ Time Out: _____

Name: _____ Time In: _____ Time Out: _____

OPENING PROCEDURE: COUNT CASH IN DRAWER AND RECORD BELOW

BEGINNING CASH IN DRAWER– Should be: Jenner (\$75) Armstrong (\$250)

Currency	Coins
\$1 = \$ _____	.01 = \$ _____
\$2 = \$ _____	.05 = \$ _____
\$5 = \$ _____	.10 = \$ _____
\$10 = \$ _____	.25 = \$ _____
\$20 = \$ _____	.50 = \$ _____
\$50 = \$ _____	
Total = \$ _____	Total = \$ _____

Grand Total \$ _____ (Add currency & coins totals)

CLOSING PROCEDURE:

1) Run Clerk Report on Cash Register & Credit Card Settlement report and record below:

Sales Total for the Day:	\$ _____	From Clerk report
Minus (-) Charge Cards:	\$ - _____	From Settlement report
Total Cash/Check Sales	\$ _____	

2) COUNT ALL ENDING CASH IN DRAWER AND RECORD BELOW

Currency	Coins
\$1 = \$ _____	.01 = \$ _____
\$2 = \$ _____	.05 = \$ _____
\$5 = \$ _____	.10 = \$ _____
\$10 = \$ _____	.25 = \$ _____
\$20 = \$ _____	.50 = \$ _____
\$50 = \$ _____	Total = \$ _____
\$100 = \$ _____	
Total \$ _____	

Total currency & coins & checks	Checks: \$ _____
	Grand Total \$ _____

3) SUBTRACT (\$50) Jenner and (\$200) Armstrong	\$ _____
Total Cash & Checks to Safe	\$ _____

****Put 1) End of the Day Clerk Report 2) this Accounting Form, 3) Charge Card Slips with Sales Slips & Settlement report, and 4) Money in a labeled envelope into the safe – (Use small envelopes for the change).**

DAILY ACCOUNTING FORM AM/OPENING SHIFT

Enter date, your name(s), and time in and out.

Using key, turn on register; turn key right to **REG**.

Using **gray number keys**, enter daily number:

Friday **1** Saturday **2** Sunday **3** Monday **4** Tuesday **5** Wednesday **6**
Thursday **7**

Press **Clerk # key** and then press **#/No Sale** key. Drawer will open.

Itemize and total currency from cash box.

Itemize and total coins (may be in cash box or register).

Add together for **Grand Total** line.

Place accounting form in log book.

PM/CLOSING SHIFT

Enter your name(s) and time in and out at top of sheet.

Clerk Report:

Turn cash register key to **X**
Press **Daily Clerk Report key**.

Credit Card Settlement Report:

At the top left of the machine,
press PURPLE with YELLOW around it key
until it reads VOID at the top.
Press **F3** (Settlement).
Press **green Function/ENTER** to confirm.
Attach report to day's credit card receipts.

On Clerk Report, read total for your day (Friday 1, Saturday 2, Sunday 3, Monday 4 etc.).
Enter this amount on **Sales Total for the Day** line.

From Credit Card Settlement Report, enter total on **Minus (-) Charge Cards** line.
Subtract **Minus (-) Charge Cards** from **Sales Total for the Day** for **Total Cash Sales**.

Count currency and coins in register. Itemize and total.

Enter total **Checks** amount on line.

Add currency, coin, and check totals for **Grand Total**.

On **Minus (\$75)** line enter \$75.

Subtract \$75 from **Grand Total** to figure **Amount to Safe**.

Subtract total amount of checks from **Amount to Safe**.

This is the sum of currency and coins you will put in the safe.

Label business size envelope with date and amount in envelope.

In envelope, place

1. Accounting Form
2. Clerk Report
3. Credit Card Settlement Report attached to credit card receipts.
4. Checks, currency, and coins (in small brown envelope).

Deposit envelope in safe; verify envelope drops.

CASH REGISTER SALES STATE PARK VISITER CENTERS

If you have sales related questions, call Michele Luna 632.5797 home 696.0656 cell or the visitor center coordinator.

The cash register is our friend. Please do not unplug it.

- I. Turn Register On:** Insert the key into the register and turn it to the **REG** position. The register should say **CLOSED**. If not, sign the previous clerk out by pressing **"0"** and **CLERK #**.
- II. Enter Clerk #:** Each day of the week has a different Clerk #. Enter the following: Friday: 1, Saturday: 2, Sunday: 3, Monday: 4, Tuesday: 5, Wednesday: 6, Thursday: 7
After entering the correct number, press the **CLERK #** key.
(At the end of the day you must sign off by pressing "0" and the CLERK key.)
- III. Sales Tax:** Sales tax will be added to the sale automatically. Prices no longer include tax. This necessitates the need for all types of coins in order to make change.
- IV. CANCEL key:** You can cancel a sale anytime by pressing the **CANCEL** key and starting over from the beginning.
- V. Opening the Cash Drawer:** The cash drawer can be opened without making a sale by pressing the **#/NO SALE** key.
- VI. Membership Discounts:** Before you start a sale ask the customer if they are a member of Stewards of the Coast and Redwoods, which gives them a 10% discount. If they are not a member ask them if they would like to become a member, which will give them a one time discount of 15% and 10% in the future at the JVC, the Armstrong VC, and at special events where Stewards sells educational merchandise. They will also be supporting education and preservation in our State Parks.
Discounts need to applied after each item is entered/scanned into the register. Enter each item and then press the appropriate discount key. There will be times when we put items on sale, in which case you will enter the appropriate discount for that item.
- VII. Barcodes:** Most items will be scanned using the barcode scanner. Simply put the UPC code on the item under the scanner. The red light needs to highlight the barcode. When done correctly the item will show on the register LCD after a beep is heard.
PLEASE NOTE: Each type of postcard and bookmark will have a unique barcode so each one needs to be entered separately.

ALSO NOTE: The barcode for mini packs is under the flap and if a postcard does not have a barcode it can be entered by pressing the preset **POSTCARD** key.

- VIII. Preset Items:** There are a few preset items such as hats, maps, patches, pins, etc. Simply press the item key to enter that item.
- IX. PLU Sales:** Items without a preset key or barcode will be labeled with a PLU number. Enter the correct number and press the **PLU** key.
- X. Multiple Sales of the same item:** To enter multiple sales of the same item press the numeral for the number of items being sold, then press the **@/FOR** key. Then either press the item preset key, scan the item, or enter the PLU number.
- XI. Misc. Sales key:** If an item does not ring up for some reason. Enter the amount of the sale and press the **Misc. Sale** key. Make a note on the accounting form and leave a message at the Stewards office so a correction can be made as soon as possible.
- XII. Cash, Check, or Credit Card Sales**
For all types of sales press the subtotal key when you are finished ringing up all the items.

Then ask the customer if they want to pay by Cash, Check, or Credit Card.

Cash – Subtotal Sale – enter the amount of cash the person gives you and then press the **CASH ENTER** key. The Cash Register will tell you how much change you owe them. Give the customer their receipt.

Checks – Subtotal Sale – Press the **Check** key and then check the person's Drivers License and make sure the customer's address and phone number are on the check. Give the customer their receipt.

Credit Cards – Subtotal sale – Press the **Credit Card** key and run their credit card on the separate machine (see next page). Give the customer their receipt.

PLEASE NOTE: You will need to attach a receipt to the merchant copy of the credit card receipt – ***press the CASH ENTER key again and a second receipt will print out.***

- XIII. Voiding Sales:** If you need to void an item when you are in the transaction the press the **VOID** key and re-scan the item or enter the preset or PLU number.

If you need to void a complete transaction after it has been finalized then turn the key to the **VOID** position and re-enter each item to void the entire sale.

CREDIT CARD SALE

If you also volunteer at Armstrong, please note this is a different machine!

When you begin your shift the machine should read:

Date Time
 Sale
 Phone Order
 Check

If not, at the top left side of the machine press **PURPLE** with **YELLOW** around it button until it does.

SALES

*To finalize sale on cash register,
remember to use the **blue Charge key** instead of Amt Tend/TOTAL*

1. Press **F2 SALE**.
2. Swipe credit card (black strip facing down and outward).
3. Choose card type: **Credit**
4. Enter expiration date if asked.
5. Press **green ENTER** button.
6. Enter the amount of the sale. Decimal point is automatic.
7. Press **green ENTER** button.

Communications will start.

When receipt is printed tear off the charge slip and have the visitor sign on the line. Attach the cash register receipt to this slip and put in cash register.

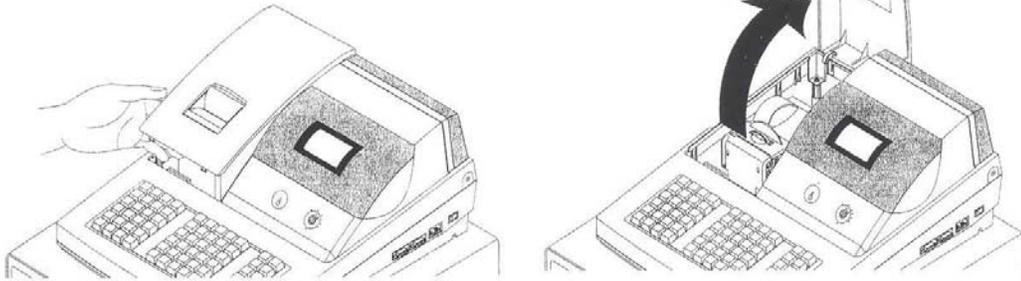
When asked to print a customer copy, say yes **Y**; give this unsigned receipt to visitor.

Credit Card Machine Voids

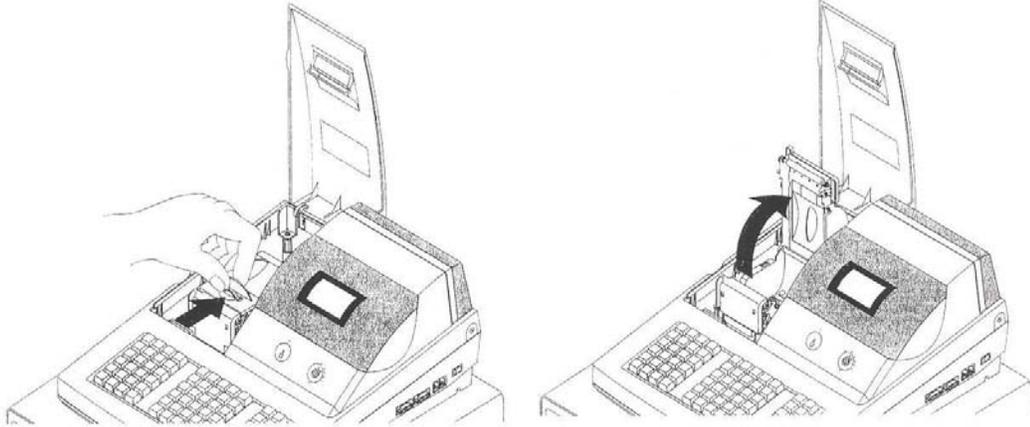
1. Press **PURPLE** with **YELLOW** around it button (top left of machine) until it reads VOID.
2. Press **F1 (VOID)**.
3. Enter password **6682**.
4. Press **green ENTER** button.
5. Press **SLCT**.
6. Void last transaction? **YES**
The machine will show the last transaction to verify.
7. Press **F2 YES**
The machine will connect and transmit.
8. Print a customer copy? **YES**

Installing the Paper

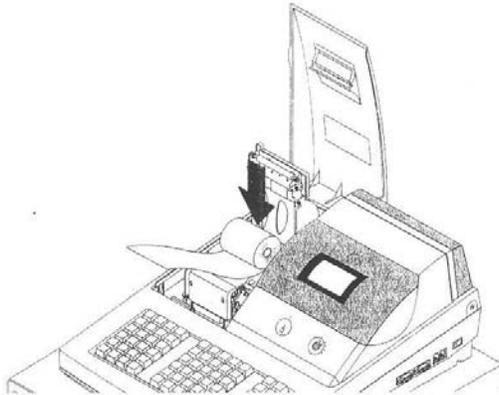
1. Remove the printer cover.



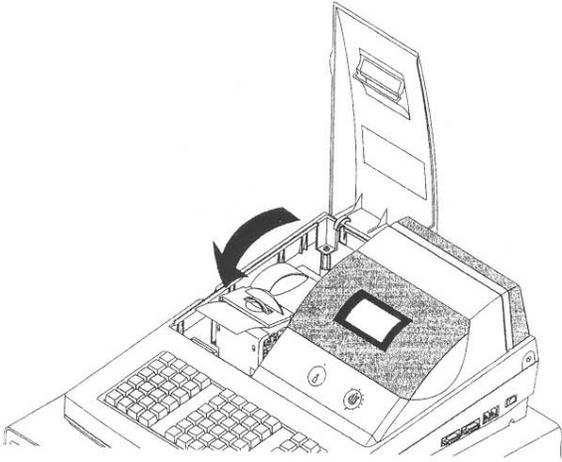
2. Push the blue cap lever and then lift up to open the paper cover.



3. Ensure that the paper is being fed from the bottom of the roll.



4. Put the leading edge of the paper over the printer.
5. Close the paper cover slowly until it locks firmly



6. Passing the leading edge of the paper through the cutter slot. Tear off the excess paper. Replace the printer cover.

