



Howland Hill Outdoor School

Facility Guide



“The young people of today are the lawmakers, the scientists, the industrialists, the conservationists, the cattlemen, and the lumbermen of tomorrow. It is vitally important that they learn today the values of the national parks, and the principles underlying their preservation. For they will have the say tomorrow as to what becomes of these properties of the people.”

Newton Bishop Drury

Secretary, Save-the-Redwoods League 1919-1940

Director, National Park Service, 1940-1951

Chief, California Division of Beaches and Parks 1952-1959

President, Save the Redwoods League, 1971-1978

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Introduction

Howland Hill Outdoor School (HHOS) is an outdoor education facility within the boundaries of Redwood National and State Parks. It is a place where students can leave their traditional classrooms and safely learn in the natural environment. This guide will sow the seeds for a successful trip to the outdoor school. While at HHOS, students and teachers can gain new experiences in living and working together. Trust and cooperation blossom at the outdoor school and then grow further in the classroom, providing productive and satisfying experiences for all involved. It is the parks' education goal **to provide Standards- and Benchmark-based educational opportunities for students and teachers in northern California and southern Oregon; to develop intellectual and emotional connections to the natural and cultural resources within the redwood region; and to promote an understanding of park stewardship values, resource management practices, and land management issues.**

Redwood National and State Parks are proud to offer this educational experience to you and your students. It is the parks' overall mission **to preserve, protect, and make available to all people, for their inspiration, enjoyment, and education, the ancient forests, scenic coastlines, prairies and streams, and their associated natural and cultural values, which define this World Heritage Site; and to help people forge emotional, intellectual, and recreational ties to these parks.** Redwood National and State Parks sincerely thank you for providing HHOS staff with the opportunities to introduce and share this common heritage.

Feel free to make this guide a genuine workbook: fill the margins and empty spaces with notes. Also, please let the HHOS staff know how this guide worked for you, and how it could be improved.



The old Lodge, with new kitchen area in the background. 2009

How the Outdoor School Came To Be

Eli and Mary Howland were on route to Oregon from Ohio in September of 1866 when they stopped in Crescent City to await the birth of their sixth child. By the time Robert Howland came into the world, the family had decided to settle in northern California instead, and bought a ranch in Elk Valley, not far from Crescent City. Today Howland Hill Outdoor School is located on the prominent hill that still bears the pioneer's name.

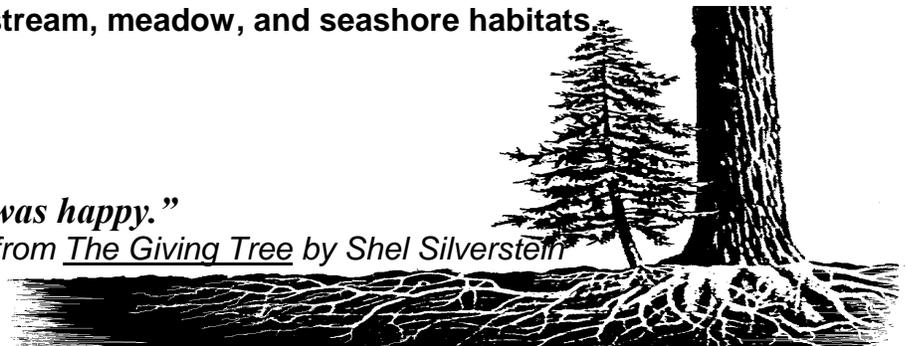
In 1978, all that existed on the future HHOS site was a run-down cabin and fencing from an abandoned early-1900s sheep ranch, in open grassland surrounded by third-growth redwood forest. Redwood National Park's existing "Environmental Living Program" needed a site in which to grow and the hilltop was perfect. Preparation of the site began in February 1979, funded by the National Park Service. California Employment and Training Act (CETA) employees, the California Conservation Corps, the Youth Conservation Corps, and volunteers began construction of five temporary A-frame sleeping shelters. The site was cleared of debris, the first water system and an outdoor cooking area built, the run-down cabin converted into a larger building to serve as a central Lodge, and composting toilets installed! Today the facility continues to improve: the A-frames replaced with spacious cabins, the kitchen enclosed and upgraded to commercial-grade status, the water system upgraded, and flushing toilets installed. This year will finally see the replacement of the original Lodge with a new structure designed for environmental learning.

Since those early days, HHOS has gone through quite a metamorphosis! Future developments at HHOS depend on the cooperative effort of teachers, parents, alumni, students, park staff, and other partners working together. As HHOS evolves, its humble beginnings and the cooperation of the educational community that turned a dream into reality will always be remembered.

The parks' environmental education curriculum has changed throughout the years as well. The first program focused on the concept of "living history," with portrayed "mountain men" explorers, at the Nickel Creek campground south of Crescent City. The move to Howland Hill provided both a more secluded site and more in-depth programs. Education curriculum in the parks has always been National Education Standards-based, providing teachers and leaders with opportunities for field programs extended from their in-class studies. Most of the participants at HHOS come from Del Norte County, but several hundred students from other areas also use the site each year. New programs will continue to sprout at the site, and be constantly reviewed and revised. However, **the basic core of the curriculum for any group using Howland Hill Outdoor School will be stewardship of Redwood National and State Parks: its unique ecosystems and the natural and cultural values associated with its forest, stream, meadow, and seashore habitats.**

"And the tree was happy."

from The Giving Tree by Shel Silverstein



Redwood National & State Parks

Our common mission is to preserve and make available to all people, for their inspiration, enjoyment, and education: the ancient forests, scenic coastlines, prairies, streams, and their associated natural and cultural values, which define this World Heritage Site; and to help people forge emotional, intellectual, and recreational ties to these parks.

Curriculum developed for education programs within Redwood National and State Parks must reflect the parks' primary interpretive themes, listed below. At the same time, programs must meet individual groups' goals, as well as National and State Education Standards as appropriate. Imagination and creative planning accomplish these goals.

-  The ancient coast redwood ecosystem preserved in Redwood National and State Parks protects some of the world's most majestic forests and is home to a unique community of plants and animals.
-  The mosaic of habitats within Redwood National and State Parks, which includes old-growth forest, prairies, oak woodlands, and coastal and near-shore marine environments, are increasingly important refugia for a number of rare and endangered species.
-  Steep, highly erodable landscapes, heavy rainfall, powerful rivers, and frequent earthquakes are all related to local geologic forces generated near the junction of the three tectonic plates of the earth's crust that underlie the region.
-  The Yurok, Tolowa, Hupa, and Chilula peoples who have lived here for thousands of years, and whose aboriginal lands are now within park boundaries, continue many aspects of their traditional life ways.
-  Attracted by the diverse natural resources of the northern California coast, residents developed a number of industries including mining, ranching, fishing, and logging.
-  Redwood National and State Parks preserve the living legacy of 19th and 20th century conservation efforts, which set aside diminishing redwood forests, helped spur a worldwide environmental movement, and provide a testing ground for cooperative management and large-scale restoration of severely impacted forest lands.

Outdoor Teaching/Learning in the Parks

Outside of the controlled environment of the classroom, always be ready to “plan on the unplanned”! Out on the trail, a sudden hummingbird display or startled garter snake can steal the spotlight from any set lesson plan. Rather than an unwelcome disruption, the surprise occurrence becomes a day's most wonderful resource, priming students' curiosity and excitement. We try always to make the most of it by relating it to other observations or to a broader concept.

First and foremost = Safety

Safety is essential to the continuation of HHOS programs. Teachers should first be familiar with their school/district's safety policies for field trips. HHOS requires a minimum of one adult counselor/chaperone (other than the teacher) for every 10 students. Overnight school groups will need two adults for each cabin. All rangers are trained in First Aid and CPR techniques, and activities are readily adjusted to meet safety concerns.

First and second-most = Protect the habitat

Outdoor education, like any other human activity, has an impact on the environment. In addition to curriculum-based lessons, we teach students outdoor manners, trail courtesy, and how to live lightly on the earth. Whenever possible, we teach smaller groups at study sites instead of entire classes at one time, and always encourage awareness to the sensitivity of the natural world.



Don't help a good bird go bad!

(see Appendix for marbled murrelet information and printable coloring page)

"How Do I Plan This?"

The HHOS reservation year is divided into Fall and Spring. "Fall" is mid-September to the end of October. "Spring" is mid-April through the end of May prior to Memorial Day.

Reservations for the *upcoming school year (September-May) begin May 1st on a first-come/first-serve basis: call the Education Specialist at 707-465-7391.* A minimum lead-time of one month is needed for reservations! Site tours for orientation and planning purposes are recommended and always available.

National and State Education Standards-based environmental education at HHOS is a cooperative effort between the classroom teacher/leader, and trained national and state park rangers. All work together throughout the planning phase and during instruction. After registration is confirmed, an appropriate grade-level, Standards-based program outline is presented to the teachers/leaders. With the assistance of the Lead Ranger, teachers/leaders then fine-tune program activities so they align with their classroom curriculum. HHOS programs should not be "stand-alone." Rather, teachers are expected to prepare their students in the classroom prior to the visit, then follow up with activities related to their experiences to make the HHOS visit more meaningful to students. Because of this important educational requirement, HHOS is not available to all groups. Facility use by groups who prefer to do their own stand-alone programs (Scout groups, for example) is considered a rental and a different use fee applies (Page 15-16). Groups desiring facilities for personal events such as weddings, reunions, birthdays, and/or other personal or recreation-based activities need to seek an alternate facility.

It is the responsibility of the teacher/leader to oversee all phases of the visit.

Responsibilities include arranging reservations and visiting the site prior to the scheduled use, and doing preliminary and follow-up work in the classroom. On overnight visits, duties also include supervising the parents/counselors, coordinating kitchen activities; providing for the safety and discipline of students; planning for and implementing meals and evening activities; overseeing facility clean-up before leaving; and keeping the park rangers notified of any problems, hazards, or questions that may arise during their stay.

In order to allow the maximum number of students an opportunity to experience HHOS in any given school year, groups/classes are limited to one visit (1-3 days) per school year.



Restrooms, built in 2000

Pre- and Post-Visit Activities

The success of students' total experience at HHOS relies on the preliminary and follow-up activities implemented in the classroom.

Students who have had a preliminary introduction to the site and its rules, and introductory activities on the concepts and themes they will explore in the parks, will have an enhanced understanding of the HHOS experience. It is also important for the students to reflect on their visit by engaging in activities that reinforce concepts and themes studied at the Outdoor School. Students should be encouraged to communicate concepts learned by writing, acting, singing, drawing, or speaking. Some of the programs used at the outdoor school suggest follow-up activities and provide journals for the students. These can be additions to the classroom curriculum, and can help meet teachers' assessment goals.

...and Follow-Up Evaluations

Following the visit, teachers will complete a Program/Facility evaluation form. This input is invaluable to the continued growth and improvement of Howland Hill Outdoor School. The Rangers take these evaluations very seriously, and have implemented many changes to HHOS that teachers have suggested on past evaluations. For example, HHOS would not have such a nice kitchen and restrooms if not from users' past input.

Thank you for your continued support!



"There are only two lasting bequests we can hope to give our children. One is roots; the other, wings."

Hodding Carter

Need Preparation Help?



The campfire area

On the next page is a teacher's check-off list. The list might seem long but it's not complicated. To make it easier and more fun, we recommend integrating it into the classroom curriculum as a preliminary program. Introduce the themes or topics of what will be explored during the visit, and involve the students in the planning process wherever possible. The better the plan, the more all will learn and benefit from your visit to Redwood National and State Parks' Howland Hill Outdoor School.

Remember there are people always available to help you!

To reach the parks' Education Specialist (for reservations and all park curriculum education program-related questions)

call (707) 465-7391 or email lynda_mealoe@nps.gov

To reach Howland Hill's Education Technician & Site Coordinator (for facility and specific group program questions)

call (707) 465-7396 or email susan_davis@nps.gov

Redwood National and State Parks' website is www.nps.gov/redw

Check-off List

1. Make reservations as early as possible after May 1st for the upcoming school year by calling the Education Specialist at 707-465-7391. The Use Agreement (see following pages) and bill for applicable fees will be mailed no later than one month before your visit, with all fees due two weeks prior to your visit.
2. Begin financial and meal planning (see Page 9-11).
3. If a first-time user of HHOS, make arrangements for an on-site orientation visit, particularly if overnighing. Include parents/counselors in the orientation as well.
4. At least two weeks prior to the visit, call or meet with the HHOS Lead Ranger (if they haven't called first!). Review the proposed daily schedule/lesson plan and both the ranger-led and planned independent activities (campfires, chores, free time, meal prep, etc.) if overnighing.
5. Make transportation arrangements. This includes the bus, separate vehicles for gear, etc. **To bring a large bus past the parking lot requires prior arrangements through the Education Specialist.** Overnighing? Plan on transporting gear in a single vehicle or in a trailer. Keep private vehicles to a minimum; on-site parking space is very limited.
6. **Check with any school personnel who need to know!** (For example: your Grant Administrator, Principal, etc.)
7. Arrange for payment of the **Use Fee** (see reverse side of appropriate Use Agreement, Page 14 or 16). The Invoice will be provided with the original Use Agreement.
8. Arrange for qualified supervision: **one responsible adult for every ten students.** This number can include the teacher or main leader, but not park personnel. At least one adult must be with each study group at all times. For overnights: two adults are needed for each cabin, and one adult designated as Kitchen Coordinator .
9. Make sure each student has a signed parental permission slip.
10. Make lists of group happenings: roll call (many groups assign each child a number), cabin assignments, study groups, and chores.
11. Prepare in class: do preliminary activities, review rules and what to bring, **make name tags**, show pictures from previous trips, visit the parks' web site, etc.
12. Come up to the Hill and LEARN! ☺
13. **Back at school:** Fill out the facility/program evaluation and mail it in. Carry out follow-up activities.

Office Use:
 Fee: _____



USE AGREEMENT
Standards-Based Programs 2009-2010
HOWLAND HILL OUTDOOR SCHOOL
Redwood National and State Parks



Please read all information thoroughly, fill in all open blanks, sign, make a copy for your records, and return this original with your fee payment AS SOON AS POSSIBLE to the address listed, **no later than two weeks prior to the scheduled date of your visit.**

Date(s) of visit: _____
 Name(s) of teacher/leaders: _____
 Organization/Group: _____ Phone: _____
 Mailing Address: _____
 E-Mail Address: _____
 # Students (45 max): _____ Grade Level(s): _____ # of adults: _____
 Student Transportation: bus _____ / # of cars: _____

Following is the basic agreement for use of Howland Hill Outdoor School (HHOS), a facility for the implementation of California and Oregon Education Standards-based programs.

We reserve the right to cancel, at any time, groups failing to comply with this Agreement

- Established National and State Parks regulations will be followed to protect and preserve the natural environment. Plant gathering or feeding of wildlife of any kind is not allowed. Only qualified service animals are allowed on site; no personal pets.
- The group leader/teacher designated above will be on-site and responsible for the actions of the group at all times. If a group leader must leave the group, a substitute leader will be assigned. The group leader agrees to support HHOS staff in maintaining school discipline standards: "Three Strikes Rule"
 - 1st incident: student will receive a verbal warning
 - 2nd incident: student will given Time Out or placed with adult leader
 - 3rd incident: student will be removed from the activity; after discussion with the teacher a decision will be made whether the student should be taken back to school.
- A ratio of one qualified leader/adult to every 10 students will be maintained at all times. Adults are expected to assist with the group's educational experience, and adhere to all related guidelines in the provided "Ranger Aide" pamphlet. Younger siblings should be left with other caregivers at home
- The school gate off Howland Hill Road will be kept **CLOSED at all times**, and locked overnight. Two sets of keys will be issued to the overnight group leader at check-in for their use.
- Each group will have one personal vehicle on-site at all times for emergency use. No more than **three vehicles** are allowed at the school site. Extra vehicles must be parked in the main lot ¼ mile from the site. Prior permission is required for any buses or extra vehicles past the parking lot.
- All accidents or unusual happenings will be reported to the site ranger as soon as possible.
- No combustible items will be permitted in the cabins: matches, candles, lanterns, or anything that requires a flame
- **To promote a positive outdoor experience for all students, the telling of "scary stories" is not permitted at Howland Hill Outdoor School.**

[HHOS Use Agreement (continued):

- Kitchen use will comply with State and National Health Codes, as detailed in the Standard Operating Procedures set forth in the HHOS Facility Guide, and posted in the kitchen.
- **To avoid attracting or encouraging confrontations with wild animals:**
 - Garbage cans must not be over-filled; lids must close and latch completely. If all cans become full, all garbage beyond the capacity of the cans, and any strong –smelling garbage (like salmon parts, etc.), must be taken with the group on leaving.
 - All food and other attractants must be properly stored in the kitchen or in vehicles; no food is allowed in sleeping cabins (water bottles are OK).
 - All facility doors must be kept closed at all times.
 - Group snacks should be individually “contained” and non-crumbling, such as string cheese, soft granola bars, or fruit rollups.
- **Pre-cycle, reduce, re-use, and recycle!** HHOS provides washable dishes, cups, and utensils for groups to use and wash while on site. Please: no “disposable” paper or Styrofoam cups, plastic plates, or utensils. Provide one name-labeled water bottle per person; bottles can be refilled onsite as needed.
- For overnight groups, check-out time is no later than 3:30 p.m., and only after the site ranger has conducted a check-out inspection of facilities. Groups will be responsible for the safe return of all loaned park property and keys to site ranger during checkout.

HHOS Standards-Based Program Fees

1-35 students..... \$50.00 per day
 36-45 students..... \$100.00 per day

Refund Policy: You are entitled to 100% refund of your paid fee if you cancel two weeks prior to your visit, or if the park cancels for any reason. If you need to cancel within two weeks of your visit, please submit your refund request in writing for a 50% refund of your paid fees.

***Mail payment (checks payable to RPA (Redwood Park Association) and this signed reservation form to Redwood National and State Parks - HHOS**
ATTN: Janet Lynch
1111 Second Street
Crescent City, CA 95531

PLEASE READ, DATE, and SIGN:

I / we have received on-site orientation to HHOS, or in lieu of on-site orientation, have read the HHOS Facility Guide, either online at <http://www.nps.gov/redw/forteachers/howland-hill-outdoor-school.htm>, or a provided hard copy.

I / we have also fully read this Agreement, understand what is required to use HHOS, and agree to be responsible for the actions of our group while on site. I / we understand that failure to comply with the above Use Agreement can affect my/our groups’ future use of the facility.

Signature(s) of leader(s):

Date:

X

X

Office Use:

 Fee:



Rental Agreement 2010 HOWLAND HILL OUTDOOR SCHOOL Redwood National and State Parks

Thank you for requesting use of Howland Hill Outdoor School for your group's visit to Redwood National and State Parks. Please read all information thoroughly, fill in all open blanks, sign, make a copy for your records, and return this original with your fee payment AS SOON AS POSSIBLE to the address listed. The site ranger will contact you prior to your arrival to schedule any needed facility orientation, and to answer any questions.

Date(s): _____ Arrival time: _____ Departure time: _____
 Name(s) of teacher/leaders: _____ Phone: _____
 Organization/Group: _____
 Mailing Address: _____
 E-Mail Address: _____
 # Students (45 max): _____ Grade Level(s): _____ # of adults: _____
 Student Transportation: bus _____ ; # of cars: _____

The following is the basic agreement for use of Howland Hill Outdoor School (HHOS), a facility for the implementation of park resource-related educational programs. This signed Agreement and payment of applicable fees are due no later than two weeks prior to arrival unless other arrangements have been made. A copy of your agenda/school curriculum as it relates to both park resources and National Education Standards must be included.

We reserve the right to cancel, at any time, groups failing to comply with this Agreement.

- Established National and State Parks regulations will be followed to protect and preserve the natural environment. Plant gathering or feeding of wildlife is not allowed at any time. Only qualified service animals are allowed on site; no personal pets. Quiet time is enforced park-wide 10:00 p.m. to 6:00 p.m.
- The group leader/teacher designated above will be on site and responsible for the actions of the group at all times. If the leader must leave the group, a substitute leader will be assigned.
- A ratio of one qualified leader/adult to every 10 students will be maintained at all times. Adults are expected to assist with the group's educational experience, and abide by the same rules and regulations as students. Students will not be permitted to wander off by themselves at any time.
- The school gate off Howland Hill Road will be kept **CLOSED at all times**, and locked overnight. Two sets of keys will be issued to overnight group leaders at check-in for their use.
- Each group will have one personal vehicle on-site at all times for emergency use. No more than **three vehicles** are allowed at the school site. Extra vehicles must be parked in the main lot, ¼ mile from the site. Prior permission is required for any busses or extra vehicles past the main parking lot.
- Any and all accidents or unusual happenings will be reported to a ranger as soon as possible by calling **Northern Communications, 916-358-1300**
- Only provided cabins will be used for sleeping shelters. No combustible items will be permitted in the cabins: matches, candles, lanterns, or anything that requires a flame. Tents may be set up only if extra space is needed, only with prior permission, and only in designated areas.
- **To promote a positive outdoor experience for all students, the telling of "scary stories" is not permitted at Howland Hill Outdoor School.**

HHOS Use Agreement (continued)

- Kitchen use will comply with State and National Health Codes, and Standard Operating Procedures as provided on the attached sheet.

- To avoid attracting or encouraging confrontations with wild animals:

- Garbage cans must not be over-filled; lids must close and latch completely. If all cans become full, all garbage beyond the capacity of the cans, and any strong-smelling garbage (like salmon parts, etc.), must be taken with the group on leaving.
- All food and other attractants must be properly stored in the kitchen or in vehicles; no food is allowed in sleeping cabins (water bottles are OK).
- All facility doors must be kept closed at all times.
- Group snacks should be individually “contained” and non-crumbling, such as string cheese, soft granola bars, or fruit rollups.

- **Pre-cycle, reduce, re-use, and recycle!** HHOS provides washable dishes, cups, and utensils for groups to use and wash while on site. Please: no “disposable” paper or Styrofoam cups, plastic plates, or utensils. Provide one name-labeled water bottle per person; bottles can be refilled onsite as needed.

- For overnight groups, check-out time is no later than 3:30 p.m., and only after the site Ranger has conducted a check-out inspection of facilities. Groups will be responsible for the safe return of all loaned park property and keys to site ranger during checkout.

HHOS Rental Fees

1-30 people.....	\$100.00 per day
30-60 people.....	\$200.00 per day

Refund Policy: You are entitled to 100% refund of your paid fee if you cancel two weeks prior to your visit, or if the park cancels for any reason. If you need to cancel within two weeks of your visit, please submit your refund request in writing for a 50% refund of your paid fee.

***Mail payment (checks payable to RPA (Redwood Park Association) and this signed reservation form to Redwood National and State Parks / HHOS**
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PLEASE READ, DATE, and SIGN:

I / we have received on-site orientation to HHOS, or in lieu of on-site orientation, have read the HHOS Facility Guide, either online at <http://www.nps.gov/redw/forteachers/howland-hill-outdoor-school.htm>, or a provided hard copy.

I / we have also fully read this Agreement, understand what is required to use HHOS, and agree to be responsible for the actions of our group while on site. I / we understand that failure to comply with the above Use Agreement can affect my/our groups’ future use of the facility.

Signature(s) of leader(s):

Date: _____

X _____

X _____

Facilities Overview

We highly recommend a visit to HHOS prior to first visits, to get oriented to the facility, to answer any questions regarding logistics or location, and to answer questions parents or students might have. If a site visit is not possible, here are a few overviews:

COOKING and EATING

The HHOS kitchen is fully compliant with state and federal health and safety regulations, with stainless steel food prep areas, a 3-sink washing station, propane refrigerator, and 6-burner propane stove. There is no oven. An outdoor propane grill provides additional options (See kitchen interior photo on Page 23 and in-depth information on Pages 23 and 33). The covered outdoor dining area doubles as a classroom, and also tends to become the school's "social center." It can be enclosed in inclement weather (See dining area photo on Page 22).

SLEEPING

Four spacious student sleeping cabins--Tan Oak, Alder, Redwood, and Hemlock--nestle in the deep-shaded forest on top of Howland Hill. Each shelter can accommodate 10-12 students and all their Stuff. A fifth cabin, Spruce, is also available as a wheelchair-accessible sleeping shelter, or it can be utilized by the group's cook or teacher. Cabin windows are unscreened and open directly onto the forest, but are high enough off the ground to provide protection from animal intruders except those that can fly. Foam sleeping pads are provided. Cabins are not heated! For an exterior cabin photo see Page 25; and for cabin locations, on the area maps in the Appendix, Pages 45, 46.



STUDYING

Since HHOS is an outdoor school, all classes happen out-of-doors! However, inclement weather does force groups inside at times. Fir Cabin (right) was renovated in 2008 and now serves as a small Meeting Room and indoor classroom when the weather dictates, with propane lights and heat. The old Lodge (see exterior photo on Page 5) that served for as a classroom for two decades is slated for demolition and complete replacement in 2010.



"RESTING"

Two buildings provide full ADA-compliant toilet facilities. One building contains four individual restrooms with flush toilets and hand-washing sinks; one unit also houses an emergency shower. The second building is an environmental waste station containing two composting toilets requiring no water. See "The Clivus Toilet" page in the Appendix for more information.

Living in “Off-the-Grid” Land

Howland Hill Outdoor School is proudly “off the grid.” The facility is not connected to public utilities, other than delivered propane. Keep this in mind when planning!



Water – All water is pumped directly out of the ground to the top of the hill, then gravity-fed into all faucets, toilets, and the kitchen hot water heater. The water is fully potable, and must be conscientiously conserved: kitchen sinks need only be filled half-way, and faucets should not just run during food prep. Because of the low water pressure, it is critical that toilets not be burdened with excessive paper.



Heat – All campfire wood is provided; there should be NO cutting or collecting of forest wood for fires or cooking sticks. A maul is available for splitting wood into smaller pieces. Under no circumstances are students permitted to split wood! Groups may want to bring their own kindling and paper to ensure it is dry for easier fire starting.

A propane space heater may be available for use in the dining area. All overnight group leaders will receive full instructions for safe heater operation from the Lead Ranger before use. No students will be permitted to operate heaters, and students will be instructed on heater safety before use.



Gas – All kitchen lights, the refrigerator, the stove, and the water heater, as well as Fir Meeting Room stove and lights are propane-powered. Overnight group leaders will receive instructions on proper and safe operation of the stove and lights as part of their orientation.

- **Wall Lights:** Mantles are extremely fragile (and expensive); the filaments should never be touched. Only the Lead Ranger will replace them if needed.
- **Stove:** A ranger will turn on the pilot lights for each group use, and turn them off after the group leaves; no one other than a ranger should adjust the stove’s main gas valve.
- **Water heater and refrigerator:** These are pre-set and must not be adjusted.

Telephones (or lack thereof) - Cellular phones have particular challenges in the forest, but they do work. HHOS’ best transmission/reception spots are the gravel area in front of the kitchen (on the “phone rock”) and on the road up from Fir Meeting Room.

Equipment Available to Groups

To reduce vandalism and theft at HHOS, nothing of value is permanently stored on-site. All program materials are transported to the site specifically for each group, according to their curriculum needs. Supplies such as scissors, tape, crayons, glue, pencils, paper, etc. are always available, and stored in Fir Meeting Room

RENTAL GROUPS: If requested at least two weeks in advance, items such as stream study equipment, tidepool guides, compasses, binoculars, hand lenses, books, rubber track molds, dissecting microscopes, and puppets (and more!) are available for loan.

All park property items are returned to the ranger on duty the last day of the stay. Groups will be financially responsible for any equipment that is lost or damaged while in their care.



Rules and Regulations



Use of Park Facilities:

HHOS is for educational purposes only; family reunions, retreats, etc. must seek another facility. The land and the buildings at the site are the property of the U.S. Government. For the safety and benefit of everyone as well as for the environment, groups using HHOS must follow both National Park Service (NPS) and site regulations. Please review the information on this page, on the Use Agreement Form, and in the Ranger Aide Guide, and share it with all leaders and students before arriving at HHOS.

- * No personal pets: only officially-trained assist animals are allowed on the site. Please notify the Education Specialist prior to your visit if this will be the case.
- * Fires are permitted in designated areas only. No gathering of forest wood for fires or cooking sticks; campfire wood is provided. Only adults may use axes, splitting mauls, or matches, and not around students.
- * Willful destruction or defacing of buildings or other park property is considered a criminal act and subject to prosecution.
- * All plants, animals, and geological and archaeological objects found within the parks are under protection of the NPS and the California Department of Parks and Recreation.
- * No firearms or other weapons are allowed on the school site.
- * Every student must be with a partner and/or a qualified group leader at all times.
- * Shoes must be worn at all times (cultural dance demonstrations excepted).
- * Quiet hours will be maintained from 10:00 p.m. until 6:00 a.m.
- * **Howland Hill Outdoor School policy dictates that there be NO telling of scary stories at bedtime.** Students need to learn to view the natural world as positive, non-fearful place. For some students, the outdoors is a new experience. Stories that can frighten students can jeopardize the trust placed on us as guiding adults.
- * The facility gate on Howland Hill Road must remain closed at all times and locked at night.
- * Smoking is allowed only on the entrance road by the campfire pit, or in the smoker's personal vehicle, and **NEVER** in the presence of students.
- * Provided toilet facilities must be used while on site. When the group is on field studies away from site, proper and safe field sanitation techniques will be taught and used. When this is necessary, each child will have a partner who will "stand guard" for wildlife (and other students!)
- * Overnight trailers are permitted only with prior permission; no tent camping.

Supervision and Discipline Policies

Good planning and discipline promote safety as well as an equal opportunity for all students to learn in a non-threatening outdoor environment. At Howland Hill Outdoor School, the classroom teacher has the primary responsibility for the discipline of their students. During field studies, the rangers share the responsibility with the teacher and adult chaperones.

Standards

Teachers should review expected behaviors (detailed in the signed Agreement) with their class before arrival. At HHOS, the staff follows the “Three Strikes” Rule:

1st incident = Strike 1: Student will be given a verbal warning

2nd incident = Strike 2: Student will be given a second warning

3rd incident = Strike 3: Student will be asked to leave the activity, serving a “Time Out” with the teacher. The student, teacher, and the ranger if appropriate, will discuss the incident, and review the student’s choices and consequences.

Ultimately, teachers should have transportation available to return the student to the school if necessary.

Demeaning punishment, whether physical or verbal, is never appropriate.

Grievous or criminal behavior

Behavior that endangers the safety of others; involves the malicious destruction of wildlife, animal homes, park or fellow students’ property; or results in intentional bodily injury may result in the responsible student(s) immediately being sent home. Teachers will need alternate transportation plans should such situations arise.

“Ranger Aides”

Adult chaperones are considered “Ranger Aides” and are an important part of HHOS programs. They are expected to participate in all activities with the students, refrain from personal agendas, and be good role models. On registration, teachers will be given a printed Ranger Aide Guide to distribute to their adult chaperones, with details on expectations, responsibilities, facility information, and student behavior/safety concerns. This pamphlet is available in the Appendix, Pages 41-42, or online at

<http://www.nps.gov/redw/forteachers/howland-hill-outdoor-school.htm>.

Money Matters

Money and meals both require good planning when considering your trip to Howland Hill Outdoor School. Planned wisely, expenses can be kept to a minimum.

Group costs will include:

- **The Use Fee**
- **Transportation Expenses**
- **Food**

- 1. The Use Fee** helps defray the operation and maintenance costs of HHOS. Each group receives their Use Agreement and Invoice at least one month prior to their scheduled date; the fee is due two weeks prior to arrival. *(Please see the Use Agreements on Pages 13 or 15 for applicable fees and policies.)*
- 2. Transportation expenses** will vary by group. Some grants for bus transportation may be available through your school district or through the Save the Redwoods League (SLR). Contact the League through their website: www.savetheredwoods.org, and link to their education page. Heads up: SLR grant applications for a school year beginning in September are usually due in late June of that year. Another funding source may be through the California Regional Environmental Community (CREEC), www.creec.org. Some groups rely solely on personal vehicles (from parents, etc.) for transportation. Please keep the numbers of personal vehicles to a minimum, and make sure all drivers understand how to get to the HHOS, how to shut the gate, and where to park (Page 24 and the Appendix maps).
- 3. Food** costs can average upwards of \$5.00 per person per day for overnight trips. Some groups have softened the cost by asking for money from parents to buy breakfast, lunch, and dinner items, by requesting school lunch support, by grants, and even by asking grocery stores for donations. See Page 23 for suggestions for meal planning.



Covered dining/classroom area adjacent to the kitchen

Meals and all that!



⇒Pre-cycle, reduce, re-use, and recycle!⇐

The parks are great places to learn recycling by experience. HHOS provides washable dishes, cups, and utensils for your group to use and wash while on site. Do not bring single-use paper plates, Styrofoam cups, plastic utensils etc. Also, **please provide one name-labeled water bottle per student**; they can refill it onsite.

Food, Glorious Food!

Day-trippers: Food is individual lunches, prepared at home or by their school. If snacks are in the plan, it is best if the teacher provides the same snack for all, preferably something non-crumby (string cheese or fruit roll-ups for example), to avoid attracting crumble-loving critters.

Overnighters: HHOS follows the same food practices as public schools; check local policies. **California health regulations do not allow food to be prepared at home and reheated at HHOS, and no leftovers may be served.**

Breakfast: Cereal, hot or cold, is easiest; hot beverages (tea, cocoa); adventurous groups do scrambled eggs, egg burritos, pancakes...

Lunch: For Day One, most groups bring their own pre-packed lunch from home or school, well-labeled, and packed separately for easy distribution. Day Two lunches are best made at HHOS that morning, or ordered/picked up from a commercial kitchen.

Dinner: Limited only to oven-less imaginations and efforts! Spaghetti is always popular, as are make-it-yourself burritos, tacos, etc. Be creative and be healthful-- **well-fed students learn better!**

EXTRAS YOU SHOULD BRING

- * Dish towels
- * Coolers with food ice-packed in them (refrigerator space is limited)
- * Wooden matches and/or a lighter (we have them, but a spare is good)
- * **Dry newspaper (and kindling if you don't want to split it) for the campfire**
- * Extra hot pads/pot holders (HHOS' tend to "wander away")
- * "Specialty" cookware? (HHOS has most of what you would need, just ASK!) **But remember: no electricity!**
- * Roasting sticks/forks if needed for marshmallows, to be taken home (We cannot keep used ones, and you cannot cut your own)
- * Coffee! (Some grownups REALLY need this in the morning!)



Kitchen interior

"How Do We Get Up There?"



Visitors searching for the Howland Hill Outdoor School should look in the Milky Way Galaxy for planet Earth, the North American continent, the United States of America, State of California, Redwood National and State Parks, and Crescent City. For the easiest automobile route, south of Crescent City turn off Highway 101 onto Elk Valley Road, and from there onto Howland Hill Road. The white access gate to HHOS will be 2½ miles from the Elk Valley Rd./Howland Hill Rd. intersection, about ¼ mile beyond the paved portion of Howland Hill Rd, on the right at the summit.

A ranger will make sure the gate is *unlocked but closed* for the arriving group. For access, **lift the pin through the gate tongue that is holding it closed, open the gate, drive in, and CLOSE THE GATE AND REPLACE THE PIN.** For safety, the gate must not be left open at any time, and must be closed and locked overnight.

The main parking lot is ¾ mile beyond the gate, on the right.

Parking is limited to this small area; the school site is ¼ mile from this parking lot. A Ranger will assist with parking arrangements on arrival. All students and most adults will walk in to the school site from here with the ranger, a distance of from ¼ to 1 mile, depending on the program.

In order to keep the outdoor school as uncluttered and natural as possible, only three group vehicles may park on site. Other vehicles may be driven in to unload, then be returned to the parking lot. The ranger will ask that excess vehicles be moved, or they will be towed away at the owner's expense. Please make sure all drivers understand this! Dealing with parking issues greatly affects teaching time.

Buses cannot go past the parking lot without prior permission from the Education Specialist. If arriving by bus, groups must also bring a separate vehicle for emergency use. Overnight groups' gear should be transported a separate vehicle or in a trailer.

"What Should We Pack?"



Keep these things in mind when packing:

- Remember: There is no electricity at HHOS!
- **Please leave at home:** all personal electronic entertainment devices, student cell phones, toys, siblings, propane hair dryers, or any other item(s) not regularly allowed in a school setting, or that would otherwise be a distraction in a classroom.
- Food or snacks are not allowed in sleeping cabins (food attracts critters!).
- All personal medicines should be given to the group leader.
- Parents should notify teachers if they are going to visit the camp during their child's visit to HHOS, and obtain from the teacher a copy of the "Park Aide" Guide detailing parent/counselor responsibilities.

For a Day Visit

- ___ layered clothing; long pants; T-shirt; jacket; socks; closed-toed, sturdy walking shoes; a change of clothes if getting wet is a possibility
- ___ warm hat and gloves
- ___ individual refillable water bottle
- ___ personal day pack
- ___ rain gear, or a large plastic bag
- ___ snack, lunch (if requested by teacher)

For an Overnight Visit:

(please label everything!)

Bedding: *Thin foam pad is provided*

- ___ warm sleeping bag,
or very warm bedroll, pillow

Clothing: *Layered clothing is best!*

(pack all in one large plastic bag or duffel)

- ___ warm hat (to keep in body heat)
- ___ 2 sets of underclothes (wear one)
- ___ 2 pairs of socks (or more)
- ___ 2 shirts
- ___ 2 pairs of long pants
- ___ warm jacket or coat
- ___ rain gear (it can rain anytime) .
- ___ closed toed shoes
- ___ pajamas
- ___ sweater or sweat shirt
- ___ gloves (they do make a difference)

Food:

- ___ lunch (if requested by teacher)
- ___ non-crumblly snacks

Luggage:

- ___ backpack, stuff sack, big plastic bag, or suitcase
- ___ daypack with small water bottle that doesn't leak

Toilet Articles: *in zip-lock bag or pouch*

- ___ comb or brush
- ___ hand towel
- ___ toothbrush/paste

Extras:

- ___ flashlight and batteries
- ___ camera
- ___ plastic bag for emergency raincoat

___ **A positive attitude!!**

(This is a requirement; don't leave home without it!)



Redwood Cabin, one of the five sleeping shelters

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"How Will Our Time Be Spent?"



The following “chartblocks” are summaries of the grade-level, ranger-led programs offered at HHOS. Times are always adjusted to whatever comes up!

KINDERGARTEN PROGRAM – Senses (offered in Spring only)

Redwood National and State Parks is home to different kinds of plants and animals that can be observed and described by using the five senses.

Education Standards addressed:

National: Life Science:

- Characteristics of organisms
- Organisms and environments

California: Life Sciences:

Different **types of plants and animals inhabit the earth**

- (a) observe and describe similarities and differences in the appearance and behavior of plants and animals
- (c) ID major structures of common plants and animals

Investigation/Experimentation

- Observe common objects by using the five senses
- Describe the properties of common objects

Time	
9:00 a.m.	Arrive, meet Rangers in parking lot Hike in on Un-Nature Trail, observing and describing similarities and differences of plants, animals
9:45-10:00 a.m.	Bathroom break / SNACK
10:00-11:00 a.m.	Study Stations (2 groups of students, rotated between 2, 30-minute stations) - “What is an Animal?” w/ puppets - Senses program, with student-created ‘senses’ bookmark to take home.
11:00-(11:30) a.m.	LUNCH
(11:30-12:00)	Animal Senses Game (á la “Owls and Bunnies”) in Meadow Closing
12:15-12:30 p.m.	Group walks back to parking lot via road
12:30 p.m.	AWAY

1ST GRADE PROGRAM - Forest Needs

The forest environments within Redwood National and State Parks are a unique community of plants and animals who meet their needs for food, water, and shelter in different ways; some of these ways are more noticeable than others.

Education Standards addressed:

National: Life Science:

- Characteristics of organisms
- Organisms and environments

California: Life Sciences:

- (2) Plant and animals meet their needs in different ways
 - (2a) different plants and animals inhabit different kinds of environments
 - (2d) what an animal eats is inferred by their teeth shape

Time	
9:00 a.m.	-Arrival, meet Rangers in parking lot, -Review expectations, outdoor manners, etc. -Introductory activity ("Ranger Sez": food/water/shelter)
9:30-10:30 a.m.	1-mile Discovery Hike; Focused trail activities; with final quiet walk up uphill into school
10:30-11:00 a.m.	Arrive at site: facility tour; bathroom break; Review hike questions/answers, "outdoor eating manners"; preview of after-lunch activities EAT!
*11:00-11:30 a.m.	LUNCH
11:30-12:50 p.m.	STUDY STATIONS (Two groups, rotated in two 40- minute stations) - "Chompers" (animal teeth program) - "One-Two-Tree" (tree identification game)
12:50-1:10 p.m.	Group assembly in meadow, small-group reviews of lessons
1:10-1:25 p.m.	Hike back to parking lot via the UnNature Trail Conclusion/wrap-up
1:30 p.m.	BUS AWAY!!!

NOTE: No planned snack time, early lunch at 11 a.m.

2nd GRADE PROGRAM - Cycles

The forest environments within Redwood National and State Parks provide refuge for many different plants and animals with predictable life cycles; those environments can be described by recording the relative locations of those plants and animals.

Education Standards Addressed:

National: Life Science:

Characteristics and Life Cycles of Organisms

California: Life Sciences

(2) Plant and animals have predictable life cycles

(2b) Sequential stages of life cycles are different for different animals

(2c) Some organisms' characteristics are caused by or influenced by the environment

(2f) Flowers and fruits are associated with reproduction in plants.

Social Science:

(2.2) Students demonstrate map skills by describing the absolute and relative locations of people, places, and environments

Time	
9:00 a.m.	Bus Arrival, meet Rangers in parking lot; review cycles predictions; introductory parachute activity?
9:30-10:30 a.m.	Hike into camp via 1-mile trail TRAIL ACTIVITY (looking for evidence of forest cycles, recording observations on map/journal cards)
10:30-11:00 a.m.	Arrive at camp; brief site tour; bathroom break; Assembly: review hike-in, present afternoon study plans
*11:00-11:30 a.m.	LUNCH
11:30-12:50 p.m.	STUDY STATIONS (two groups, rotated in two 40-minute stations) - Using students' journal notes from hike-in, creation of poster-size map for classroom - "Bloomin' Bugs Connection" (Flowers/insects program)
12:50-1:10 p.m.	Reassemble in meadow, small-group reviews of lessons
1:10-1:25 p.m.	Hike back to parking lot via <u>Un-Nature Trail</u> (completes the cycle!); conclusion/wrap-up
1:30 p.m.	BUS AWAY!!!

* NOTE: No planned snack, early lunch at 11:00 a.m. instead

3rd GRADE PROGRAM - Local History

RNSP preserves the living legacy of human relationships with this area including the 19th & 20th century conservation efforts which has led to protecting diminishing redwood forests and expanding environmental awareness into the 21st century.

Education Standards Addressed:

National: Life Science: Organisms and environments
Science in Personal & Social Perspectives: Changes in Environments

California: Life Sciences:
 (3c) Living things cause changes in the their environment, some detrimental, some beneficial
Social Science:
 (3.3) Students draw from historical and community resources to organize the sequence of local historical events & describe how each left its mark on the land

Time	
9:00 a.m.	Bus Arrival , meet Rangers in parking lot; introductory past-present-future activity
9:30-10:30 a.m.	Hike-in via 1-Mile Trail: TRAIL ACTIVITIES: Encounter historic humans (Explorer 1828, Miner 1848); considering environmental changes, survival, adaptations
10:30-10:45 a.m.	Arrive on site: <u>Brief</u> site history summary (Howland family 1860s, land use/ownership changes Hobbs Wall timber harvesting); facility orientation/"line-of-sight "tour"
10:45-11:15 a.m.	LUNCH
11:15-12:00 p.m.	Activity: "Old Time Timber Tech" (Jobs in the Woods – late 1800s-early 1900s) BREAK – reassemble at campfire ring
12:15–1:15 p.m.	Activity: Back to the Future Hike (1920s-2020s) 100-year walk (1/4 mile) with time-travel trail activities
1:15-1:30 p.m.	Conclusion / Wrap-up (Millennial Challenge)
1:30 p.m.	BUS AWAY!!!

NOTE: "Early" lunch at 10:45 a.m.

4th GRADE PROGRAM (OVERNIGHT) - Watersheds and Salmon

Redwood National and State Parks' protected forest and stream environments are characterized by diverse watershed ecosystems; salmon represent the key species in these systems, and salmon survival depends on the relationships between watershed resources.

Education Standards Addressed:

National: Life Science: Organisms and environments

California: Life Sciences:

2. All organisms need energy & matter to live and grow

(2a) Producers and consumers are related in food chains & food webs and may compete with each other for resources in an ecosystem

(2c) Decomposers recycle matter from dead plants and animals

3. Living organisms depend on one another and their environment for survival

(3a) Ecosystems are characterized by their living and non-living components

(3b) In any particular environment, some kinds of plants and animals survival well, some less well, and some cannot survive at all.

Time	Day One	Day Two
8:00 a.m.		Breakfast / Chores / Clean-up / packing
9:00 a.m.	Bus Arrival, meet rangers in parking lot. Gear transported into camp by car, students hike in via Un-Nature Trail	Rangers arrive, flag salute, night/day review; day plan
9:30 a.m.	Facility orientation/tour, unpack	Study Station 1 (45 minutes) Geography/Topographic Maps
10:15 a.m.	Program overview,	Break
10:30 a.m.	Hike prep, related activity	Study Station 2 (45 minutes) Predator/Prey Game
11:00 a.m.	Hike to Mill Creek (5 miles round-trip)	
11:30 a.m.	On-trail Activities	Lunch
12:00 p.m.		Quiet Spots, directed journaling
12:30 p.m.	--Lunch at creek--	Group activity - Salmon Survival Game
1:00 p.m.		
1:30 p.m.	Activity: Stream studies	Wrap up, conclusion. Students return to bus via road
2:00 p.m.	Start back up hill	BUS AWAY
3:00 p.m.	Back in camp: snack. journals, cabin time?	
3:30 p.m.	Rangers leave *** (One ranger will stay through dinner prep)	
{5:00 p.m.}	Dinner prep / Dinner / clean-up	<i>Doesn't time fly when we're having fun?!</i> 
{7:00 p.m.}	Campfire? Night hike?	
{10:00 p.m.}	Quiet down! Lights out!	

***Teacher is responsible for all late afternoon and evening activities!



Overnighting Groups' Chores

When planning an overnight visit and dividing the group up for various activities, don't forget chores! Designating groups in advance will ensure that chores get assigned and carried out quickly and efficiently. Here are the general categories of group chores:

DAY 1

Dinner Prep

Set tables, set up food and drinks. **No student is allowed in the kitchen to prep, cook or serve!**

Fire Crew

Gather firewood from woodshed, assist adult with setting up campfire, ensure fire is completely out after use. **Students cannot use axes or matches/lighters.**

Dinner Clean-up

Oversee after-meal scraping of dirty dishes, deliver dirty dishes to kitchen; wash, rinse, disinfect dishes according to directions; clean tables and ground around eating area; use designated tools (red-topped handles) to sweep kitchen floor and porch (mop after last meal on Day2); take kitchen garbage to outside bear-proof garbage cans, filling them in numerical order; replace bags on indoor cans.

DAY 2

Breakfast Prep

{See dinner prep above.}

Breakfast Clean-up {See dinner clean-up above.}

Grounds

Pick up all litter and put into the bear-proof garbage cans. Pay particular attention to meadow and fire pit areas.

Bathroom Clean-up (usually supervised by a ranger) Take all trash bags to outside cans; replace bags; wipe sinks; brush out toilets; use designated tools (**yellow-topped handles**) to sweep and then mop floors and sweep exterior cement pads; replenish toilet paper and paper towels if needed.

Cabin Clean-up

Pick up all litter in- and outside cabins; return sleeping pads to kitchen area; sweep platforms, floor, and porch, put all sweepings in provided bags and take to the bear-proof trash cans; close doors and windows; report any damage and any lost/found items to the Lead Ranger. Help load all belongings into gear vehicle/trailer.



Standard Operating Procedures (SOPs) for the HHOS Kitchen

It is the goal of this school to provide you with the safest kitchen possible. The regulations below are based on both the National and California State Health Standards; all kitchen users must follow these procedures, or they will be asked to leave.

- ❖ One person from each group must be assigned to lead the kitchen crews. Please let the ranger know what you are planning to cook for meals.
- ❖ No children are allowed in the kitchen to prepare meals.
- ❖ All who enter the kitchen must wash their hands first at the hand-washing sink. If you touch your face at any time (even if it is just to scratch), wash your hands again.
- ❖ Hair must be held back.
- ❖ Wash cutting blocks, tools, and counters with bleach and water after each food is prepared. Wash your hands again at the hand-washing sink. The food prep sink is only for food prep.
- ❖ If you are not sure that the tool you want to use is clean, wash it before you use it.
- ❖ Wear an apron to keep you and the food clean.
- ❖ Use plastic food handling gloves to serve food, or thoroughly wash hands.
- ❖ If it boils over, clean it up.
- ❖ Keep paths clear at all times. Empty boxes must be folded down and taken out of the kitchen to the recycle area.
- ❖ Coolers must be kept at 40 degrees Fahrenheit for cold storage, and stored beneath table or neatly stacked.
- ❖ The roll-up windows must be open when food is being cooked on the stove.
- ❖ Do not eat your meal in the kitchen. If you must sample something while cooking, use a clean spoon and put it into the dirty dish tray immediately after each taste.
- ❖ If any tool touches the ground, get a clean one and wash the old one.
- ❖ If any food touches the ground, throw it away!
- ❖ If the food is hot keep it that way. A hot food warmer is provided for you to keep food warm. You may also use the stove to serve from.
- ❖ **No cooked leftovers can be reserved in this kitchen! Leftovers must be thrown away.**
- ❖ Follow clean-up procedures (posted in kitchen) after every meal.

It's OK to invite others as guests for an evening meal!

Just remember that the registered group accepts responsibility for the actions of *EVERYONE*.

- * **Visitors must follow all Redwood National and State Parks and HHOS regulations.**
Make sure they are aware of this ahead of time. The easiest way is to provide visitors with a copy of the *Park Aide Guide* (see Appendix, Page 41). The Lead Ranger will provide as many copies as needed.
- * Provide careful directions to the HHOS parking lot. Remind them to close the gate behind them. Also remind guests that they must park in the designated parking area, in a way that maximizes the small amount of available space and not block the road, and walk the short distance (¼ mile) to the school.
- * Let the students give their parent/guardian a personal tour of the site!
- * Remember there can be no food prepared/brought from home. Only food cooked on site, or commercially prepared/purchased can be consumed on site.

Notes on your plans:

APPENDICES..

- Emergency Procedures
- The Howland Hill Outdoor School Pledge
- Marbled Murrelet Coloring Sheet
- "Park Aide" Parent/Counselor Guide
This brochure is also available online:
<http://www.nps.gov/redw/forteachers/howland-hill-outdoor-school.htm>
- Maps:
 - Getting There
 - North Area Topographic
 - HHOS Area
 - Camp Facilities
- Bear, Mountain Lion information
- Clivus Environmental Waste Station information
- Coast Redwoods / Save the Redwoods League

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Emergency Procedures for HHOS

(N41°45.266' W124°07.780')

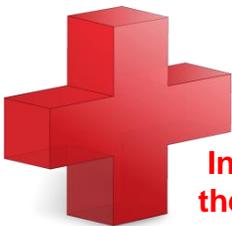
1. For any life-threatening emergency, call **9-1-1** directly. For a **Law Enforcement Ranger**, call **Northern Communications: 1-916-358-1300**. Request the dispatcher for Redwood National and State Parks, identify yourself, and request that a ranger be sent to HHOS. Follow the instructions of the dispatcher.
2. Notify the Education Specialist as soon as possible of **any** incident: **(707) 465-7391**.
3. All groups must have one vehicle at the site for emergency transportation.
4. The gate on Howland Hill road is locked after dark. Any group member needing to get in or out must contact the group leader, who will have a gate key.
 - * **Note:** Any vehicle blocking the entrance gate, or the road between the gate and the school site, can be towed away at the owner's expense.

EMERGENCY DIRECTIONS

* **Sutter Coast Hospital:** approximately 5 miles (15 min.) from HHOS.

- From gate, turn **left** onto Howland Hill Road,
- At the store/stop sign, turn **left** onto Elk Valley Road,
- At the traffic signal, turn **right** onto Highway 101 and proceed through Town, through three lights),
- Veer **right** onto Parkway Drive (follow the hospital signs),
- Past the Highway Patrol office, turn **left** onto Washington Boulevard. The hospital is ½ mile on the right, past Wal-Mart and Ace Hardware.

* **Pay phone:** approximately one mile from the gate on Howland Hill Road. From gate, turn **left** onto Howland Hill Road. Proceed down the hill to the phone by the front door of the Elk Valley Casino.



In an emergency of any kind, all students and adults not directly involved with the incident will report to the kitchen area.

If the accident is in the kitchen, group assembly will be at the campfire pit.

All should sit and wait quietly for further information and instructions from the teacher or ranger.



The Howland Hill Outdoor School Pledge

When I am in the parks,
I will do no physical harm
to any living or nonliving thing.
This includes all the plants, animals,
buildings, trails,
and people.

I will gladly do all my assignments
to the best of my ability.

I will keep our cabin clean,
and respect the privacy of others.

I will do my part to make our outing
a safe and happy one.

Name: _____

Don't Help a Good Bird Go Bad!



Can you find the baby chick? Its parents take turn bringing food to it from the ocean. The chick is a marbled murrelet. The other birds are called Steller's jays. How many jays do you see in the picture? Jays will eat just about anything that can be eaten in the forest. Did you see the food on the picnic table? This campsite has not been cleaned up! The jays are staying around to get more food. They could find the chick! If that happens, the jays will eat the chick. You can help the murrelets by helping your parents clean up after eating in the forest. Remember to never feed any wild animal in the parks including birds. Thank you!

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For resource protection and individual safety, all Redwood National and State Parks regulations apply at Howland Hill Outdoor School. The following rules in particular must be abided by for facility use:

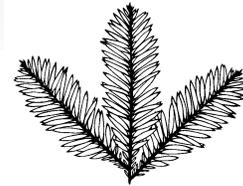
- *Collection of natural plants materials is allowed only with permission of the Lead Ranger, and for study purposes only.*
- *All wildlife will be respected. Animals such as snakes, spiders, slugs and bugs can be collected and studied during educational activities, and then returned to where they were found.*
- *Unless specifically designated, park trails and facilities are closed to pets. Exceptions are made only for certified assistance animals.*
- *The marbled murrelet, a small seabird needing large ancient forest trees to nest in for survival, is a federally identified endangered species. Research has shown that corvids (jays, crows, and ravens) are the murrelet's primary predators. By paying special attention to reducing food litter, people can keep corvids from "hanging out" at HHOS.*

PLEASE HELP by not feeding any park wildlife, and by picking up and properly disposing of any litter you may find, including the smallest food scraps.



Redwood National and State Parks Common Mission:

To preserve and make available to all people, for their inspiration, enjoyment, and education: the ancient forests, scenic coastlines, prairies, streams, and their associated natural and cultural values, which define this World Heritage Site; and to help people forge emotional, intellectual, and recreational ties to these parks.



Howland Hill Outdoor School

HHOS is strictly for educational purposes tied directly to the natural/cultural resources in Redwood National and State Parks. Unfortunately, we cannot accommodate family reunions, retreats, weddings, or other uses that are not park-, curriculum- or National Education Standards-based.



Redwood National and State Parks
1111 Second St.
Crescent City, CA 5531

Lynda Mealue, Education Specialist
Phone: 707-465-7391
Fax: 707-465-1571
E-mail: lynda_mealue@nps.gov

Welcome to Redwood
National and State Parks'

HOWLAND HILL OUTDOOR SCHOOL !



Thank you for taking valuable time to serve as a "Ranger Aide," helping create a positive learning environment at Howland Hill Outdoor School (HHOS). This orientation pamphlet outlines your responsibilities, Ranger expectations, and facility use policies/requirements. Feel free to ask the site Ranger if you have any questions or concerns.



Explore, Learn, Protect

WELCOME!



All students deserve equal opportunities for safe, fun, and non-threatening outdoor educational experiences.

We need and appreciate your help to make these opportunities happen.

- Safety is essential; thank you for keeping it first in mind.
- Please participate in all activities. Talking with other parents during a program is a distraction to the instructor, and detrimental to students' learning.
- **No smoking is allowed in students' presence at any time.** Smoking on site is permitted only on the entrance road by the campfire ring, or in the smokers' private vehicle.
- Very young siblings of students should be left with caregivers at home. If this is not possible, please understand that you assume full responsibility of assuring the child does not interfere with planned student curriculum and is safe from all hazards.

SAFETY INFO

- ✗ There will be no throwing of rocks, cones, sticks, etc., and no use of open-bladed knives other than for food prep.
- ✗ Running is permitted only during supervised games in the meadow; HHOS' gravel "hallways" are walk-only!
- ✗ Students will not be alone or out-of-sight at any time, or alone with any adult other than their teacher or relative.
- ✗ The First Aid kit is located inside the kitchen building, to the left of the door

"SURVIVAL" TIPS

- Please help the programs stay on schedule by paying attention and by assisting the ranger when asked to.
- All students must use the toilet facilities on site. During longer hikes/field studies, field sanitation techniques will be discussed in advance and followed by all.
- Don't be afraid to say "I don't know" in response to student questions. Guide students to those who might know, or find out later and personally get back to them!
- You are the grown-up, not one of the students! Kidding around with students can be easily misunderstood. If you are asked to lead a group, make sure students know your name and lead by positive example.
- Some student discipline may occasionally be necessary, but demeaning punishment, whether physical or verbal, is never appropriate. Difficult students or continued disruptive behavior should be brought to the attention of the teacher or Lead Ranger.



FACILITY NOTES

- **The gate on Howland Hill Rd. MUST be kept closed at all times.** If you are the driving the tail car in a caravan, arriving late, or leaving early, you **MUST** close the gate behind you. The teacher is given a gate key for security of overnight groups.
- Parking: To preserve the open space on site we ask that all private cars, with the exception of those identified by the teacher for transport or emergency use, be parked in the main lot, less than 1/4 mile from the school.
- HHOS is "off-the-grid". All kitchen appliances and all facility lights are propane-powered; water is gravity-fed into camp from a hill-top well with a propane pump; security features are solar-powered. Please help conserve water and gas usage. Use of propane utilities is prohibited without prior ranger instruction.
- The bear-proof garbage cans must be used to avoid unnaturally attracting any type of wild animal into camp.



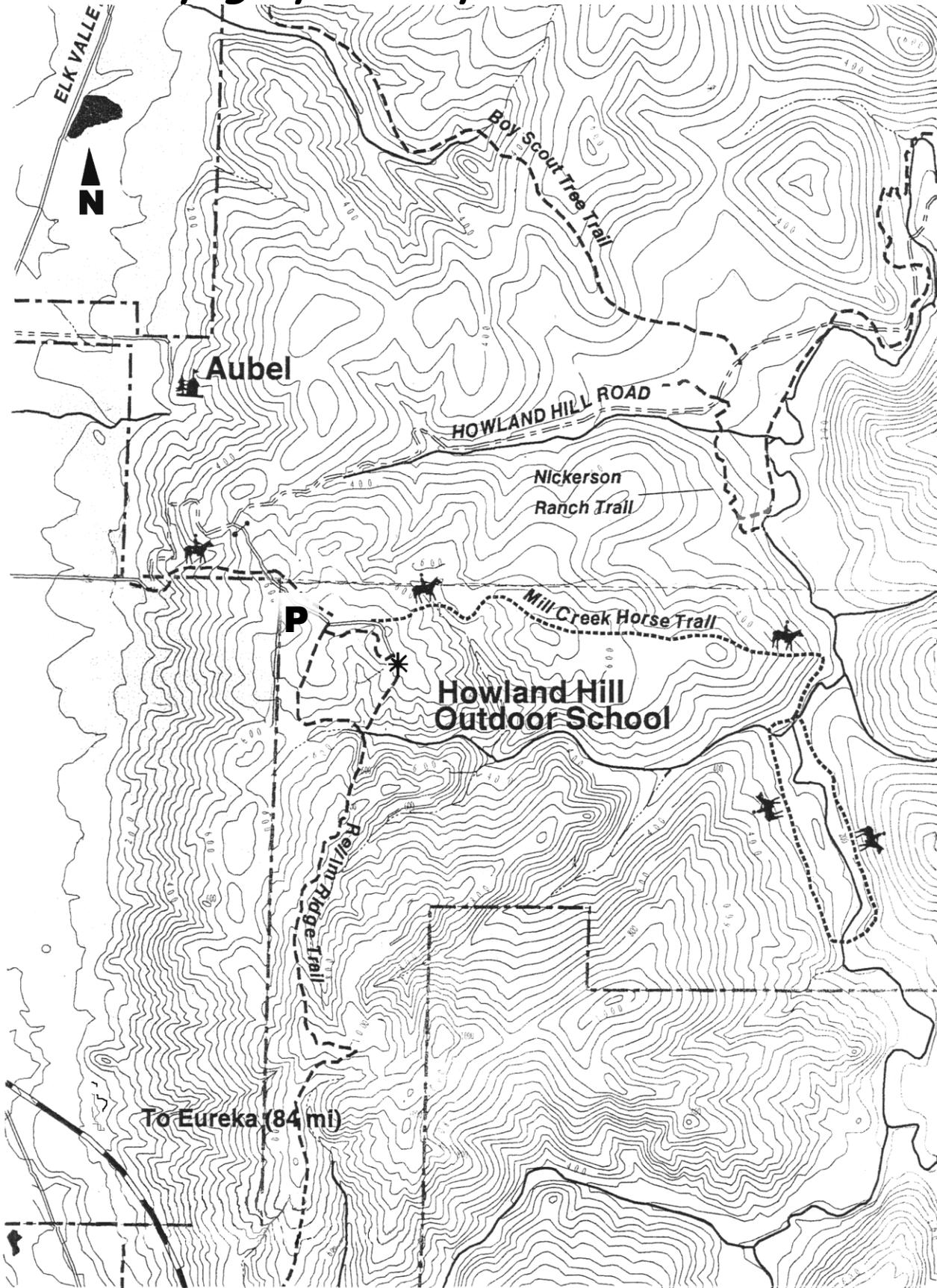
CRITTERS..... OH MY!

- Large animals are rarely seen at HHOS primarily because there is no natural water source (and usually too many people!). Report any unusual wildlife sightings to the Lead Ranger.
- Redwood National and State Parks are home to many wonderful animals; be grateful for any opportunity to safely observe the residents!

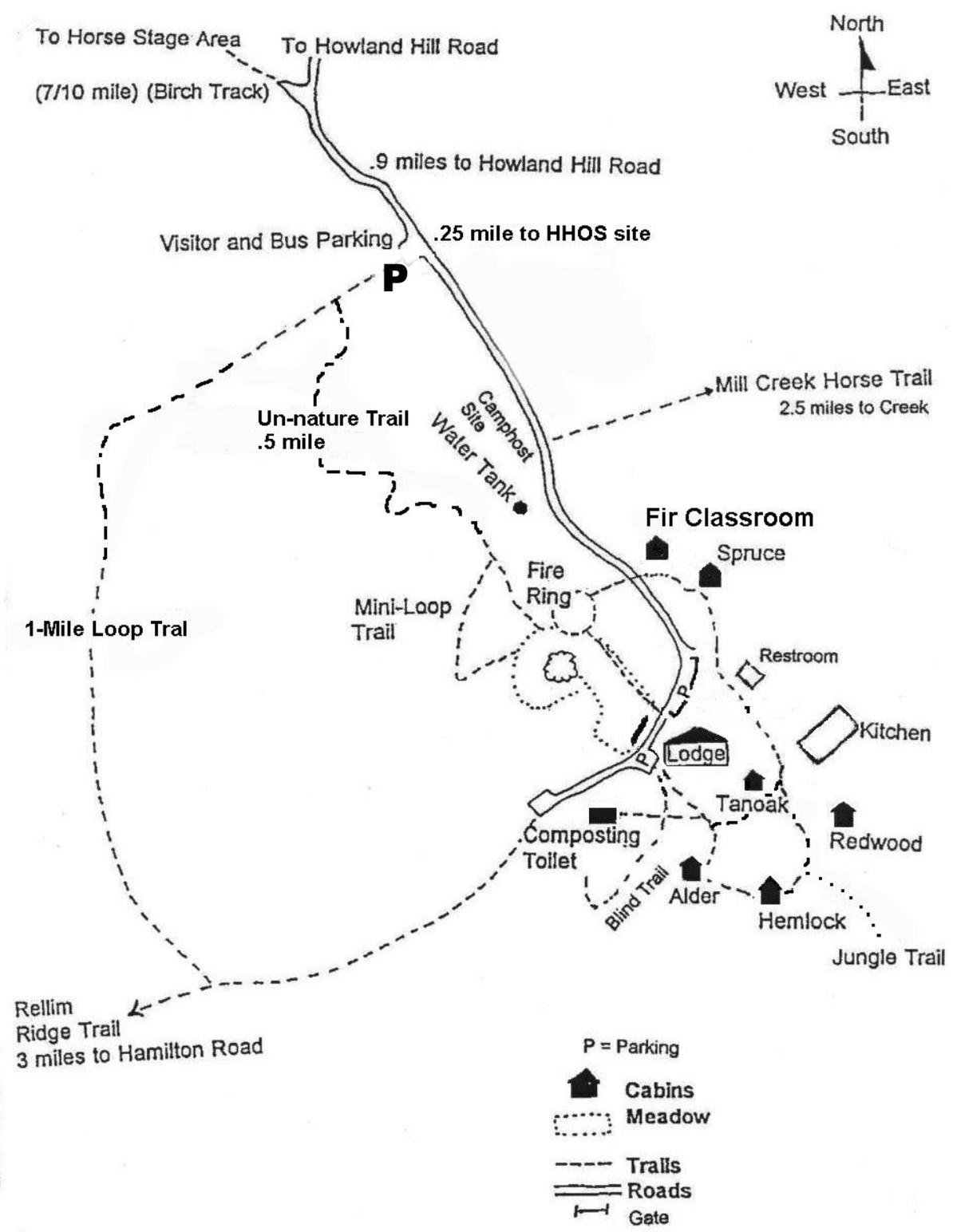
Getting There



HHOS Topographic Map



HHOS Area Map



HHOS Camp Facilities Map



The Bear Facts!



Black Bear (*Ursus americanus*)

- * Store ALL food in the trunk of your vehicle or the HHOS kitchen.
- * Put food away and clean area immediately after cooking and eating.
- * Do not feed bears (or any other creatures!)
- * Do not litter!
- * Discard waste and garbage in bear-proof trash cans as soon as possible after preparing and/or eating meals. (Everyone is responsible for his or her own trash.)
- * Do not overfill bear-proof trash cans. If it doesn't fit safely inside cans, take it with you.
- * If a bear should wander by, discourage it by making a lot of noise!
- * Keep in mind that gum, lipgloss, toothpaste, and deodorant can attract bears. Leave them at home or keep these items away from critters. Toiletries should be in a labeled zip-lock bag.

Don't Be Responsible For A Dead Bear!



Store Food and Dispose of Garbage Properly

*Violators will be issued a citation under
36 CFR 2.10(d) Redwood National and State Parks*

Mountain Lions in the Redwood Parks



Mountain lions (cougars) roam throughout Redwood National and State Parks. Although they have been spotted in picnic areas and along trails and roads, your chance of seeing one of these secretive animals is rare.

Mountain lions can be distinguished from bobcats by tail length; lion tail length is at least three-quarters the length of the body. Bobcat tails are much shorter relative to body length.

Any lion sighting should be reported to a ranger immediately. Although mountain lions have been known to attack people and pets, the likelihood of encountering an aggressive lion is very remote.

Nonetheless, it is wise to be prepared. Avoid hiking alone. Watch children closely. Do not let them run ahead of you on the trail. Hikers in particular are encouraged to read the tips on this sheet carefully. Following these tips will allow both you and the mountain lions to coexist in the parks.

The reclusive behavior of mountain lions and their tendency to live in remote areas explain why we know relatively little about these graceful cats. They once ranged from northern Canada through South America and from coast to coast; their range is now much reduced. No other land mammal in this hemisphere had a more extensive range. Primarily due to hunting and loss of habitat, mountain lions have been largely creatures of the West (in North America) since the 1920s.

The mountain lion is, for many, the quintessential symbol of wilderness: a large animal ranging freely in wild areas, independent of human interference. As the largest carnivore in the North Coast redwood parks, they are at the top of the food chain and therefore are an indicator of this ecosystem's health. In addition, they play an important role in maintaining balance within the ecosystem.

As you visit lion habitat, it is important that you understand the behaviors that these cats use to survive. You can then act accordingly to protect yourself and these animals in their native habitat.

Safety Tips:

Do not run. Mountain lions may chase things that run because they associate running with prey.

Do not crouch down; try to appear as large as possible. Attempts to hide may be unsuccessful; mountain lions see most people long before people spot them.

Hold your ground or move away slowly while facing the lion.

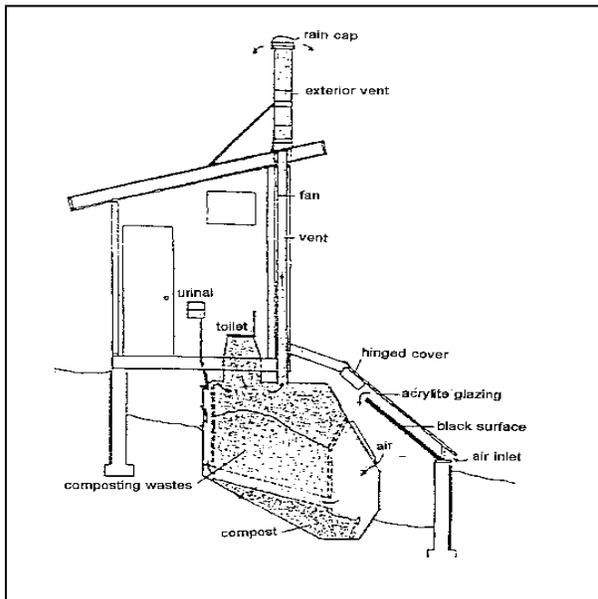
If you have little children with you, pick them up.

If the lion behaves aggressively, wave your hands, shout, and throw sticks at it.

If attacked, **FIGHT BACK.**

Report any lion sightings to a ranger immediately.
Call 707-464-6101, or stop by a park information center in Hiouchi, Crescent City, or Orick.

The Clivus Toilet



The Clivus Multrum environmental waste station is a composting toilet that turns human waste into an odorless material that can be used as fertilizer. The process combines waste with organic material (added sawdust), and heat (from the sun, collected in the sloping structure at the rear of the building), and air.



Clivus Multrum toilets, front view

The Clivus is used when groups are studying in the meadow, so students will not have to use the more distant “regular” toilets.

Some very important concerns:

1. Only human waste and toilet paper are to go into the toilet. No food scraps! Personal hygiene items must go into the bear-proof garbage cans.
2. The lid to the toilet must be closed before exiting the restroom. Closing the lid enables the proper airflow to help compost the waste, and also helps keep smells to a minimum.



COAST REDWOOD

(*Sequoia sempervirens*)

California's magnificent Coast Redwood is the world's tallest known tree and one of the world's oldest trees. Average mature trees, several hundred years old, stand from 200 to 240 feet tall and have diameters of 10 to 15 feet, and some trees have been measured at more than 360 feet. In the most favorable parts of their range, Coast Redwoods can live more than two thousand years.

Redwoods are named for the color of their bark and heartwood. The high tannin content of the wood gives the trees remarkable resistance to fungus diseases and insect infestations. The thick, fibrous bark has an even higher tannin content, and insulates them from the periodic fires which have occurred naturally down through the centuries in the Redwood region.

These immense trees have delicate foliage. Narrow, sharp-pointed needles only one-half to three-quarters of an inch long grow flat along their stems, forming feathery sprays. Redwood cones are about an inch long and each cone contains 14 to 24 tiny seeds—a pound of Redwood seeds would number more than a hundred thousand. Redwood seedlings grow rapidly, more than a foot per year in good conditions. Young trees also sprout from their parent's roots, taking advantage of the established root system.

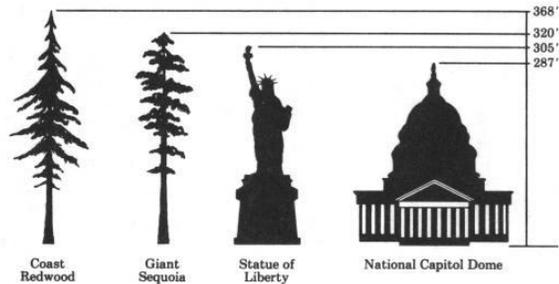
Coast Redwoods form almost pure stands in some areas—especially on flat, silt-covered river plains—but they are also found in mixed evergreen forest with the majestic Douglas-fir, as well as western hemlock, grand fir, and Sitka spruce. On drier slopes tan oak, madrone, maple, and California bay laurel grow along with the evergreens. Rhododendrons and a variety of ferns are the most common understory plants. Other plants which flourish under the trees in the duff of fallen needles include poison oak, huckleberry, hazel, and many flowering herbs.

Mammals found in the Redwood forest include the ubiquitous raccoons and skunks, black bears, Roosevelt elk, deer, squirrels, porcupines, weasels, mink, and the rare ringtail cats. Among the birds found here are the marbled murrelet and the northern spotted owl, both of which nest almost exclusively in old-growth Redwood and Douglas-fir forest. Many visitors in the Redwoods notice a common mollusc, the yellow banana slug.

It is generally believed that the last ice age limited the Coast Redwoods to their present range, a narrow 450-mile strip along the Pacific Ocean from central California to southern Oregon. In the Redwood belt, temperatures are moderate year-round, and heavy winter rains and dense summer fog provide the trees with the water they need.



It is hoped, their own natural endurance will enable them to flourish as they have for thousands of years past.



This climate was far more common in earlier eras. Paleobotanists have discovered fossil Redwoods throughout what is now the western United States and Canada, and along the coasts of Europe and Asia. Some of these fossils are as much as 160 million years old. Redwoods are relatively recent arrivals in their current region; the earliest fossil record in California is found in rocks less than 20 million years old.

A natural Coast Redwood forest is a perfect recycling system. The soil (like that in any high-rainfall climate) contains few nutrients; most of the substance necessary for life is in the trees themselves, living and dead, and in the other plants and animals of the forest. If trees are removed from the forest instead of being allowed to die and decay naturally, many nutrients are lost from the cycle.

Landscape architect Frederick Law Olmsted Jr. once said, "This generation has received, as a free inheritance from past ages, a hoard of forest wealth. But if any of the future generations for thousands of years to come are to have the opportunity of enjoying the spiritual values obtainable from such primeval forests, this generation must exercise the economic self-restraint necessary for passing on some portion of this inheritance, instead of 'cashing-in' on all of it." Since 1918 the Save-the-Redwoods League has worked to preserve the great Coast Redwood forests for future generations by purchasing Redwood lands for the California Redwood State Parks and Redwood National Park. When these parks are complete, the Redwoods will be protected from man-made dangers. From that time on,





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