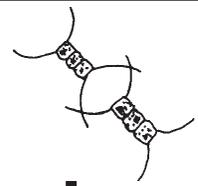
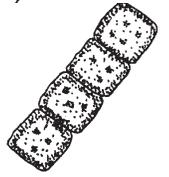




Hayward Shoreline Interpretive Center
4901 Breakwater Avenue, Hayward, CA 94545 (510) 670-7270



The Diatom Digest



Spring 2005

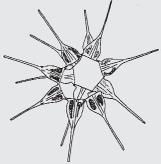
A biannual bulletin for educators and friends of the Hayward Shoreline School Pro-

Featuring

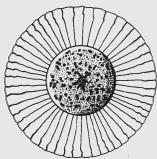
School Program Information



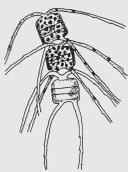
Special Rates for Returning Teachers



Volunteer Opportunities for Students



Student Preparation



Teacher and Student Feedback

Special Discount

Good for teachers and readers of Diatom Digest. As a token of appreciation to teachers, the Hayward Shoreline is offering discounts for the 2005-06 school year. If you book a field trip for the 2004-05 school year by April 1, 2005, you'll lock in this year's program fee for next year. This means that you will not be required to pay next year's increased program fee. Just mention the Diatom Digest Special when booking your program next school year and save 10% on your field trip. The staff is happy to answer any questions that you might have. Please feel free to contact the Center to discuss any aspect of our school programs. The best times to reach us are Wednesday through Sunday between 8:30 am and 5:00 pm.

Wetland Education Programs

The Hayward Shoreline Interpretive Center has been providing high-quality programs exploring the wetland habitat since 1986. We offer programs for all grade levels which support the California Science Curriculum Standards. Teachers are provided with printed pre-trip material and a special video or DVD field trip packet upon request. To help you to determine which program is right for you and your students, here are brief summaries of our school programs.

Salty Stories (Pre-K-K,1st) One hour

Animals find food, water and shelter in the marsh
Students will:

- ◆ explore saltmarsh waterways
- ◆ discover land invertebrates
- ◆ observe life in the marsh
- ◆ role-play animal behavior

Saltmarsh Wonders (2nd-3rd) Two hours

Animals and plants live where they do because they can.

Students will:

- ◆ discover plant adaptations to salt water
- ◆ observe signs of animal life in the marsh
- ◆ explore channel water to discover aquatic plants and animals
- ◆ search for invertebrates who live in the marsh
- ◆ observe saltmarsh wildlife

Shoreline Discoveries (3rd-5th) Three hours

Every plant and animal in the marsh is connected to other plants and animals in the marsh.

Students will:

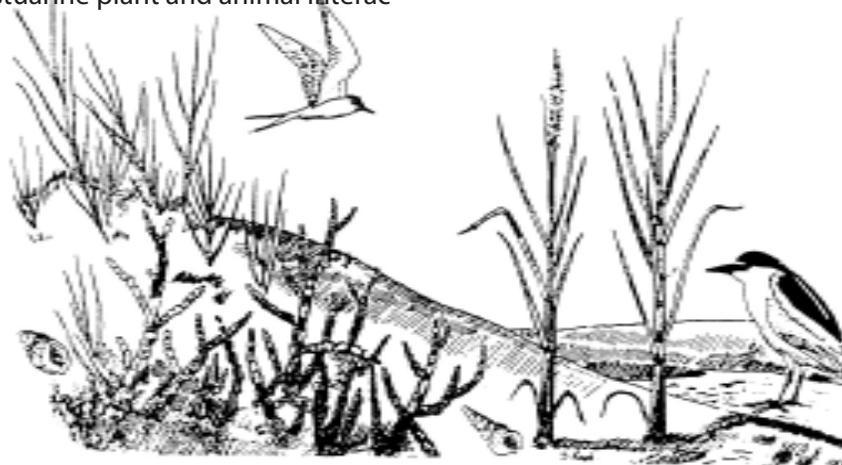
- ◆ classify marsh birds by feeding strategy
- ◆ identify marsh fish and invertebrates
- ◆ collect mud samples to observe and identify shoreline invertebrates
- ◆ identify two important salt marsh plants
- ◆ discuss some of the salt marsh estuarine plant and animal interac-

Wetland Ecology (4th & up) Four hours

The shoreline is a dynamic and diverse system of inter-dependent relationships among animals, plants and people.

Students will:

- ◆ sample physical parameters of water (temperature, salinity, pH)
- ◆ investigate their impact on organisms of the salt and freshwater marsh
- ◆ identify local resident and migratory birds to determine their niche
- ◆ identify and learn the life history of three to five marsh plants
- ◆ collect soil samples for microscopic analysis of benthic flora and fauna



It Pays to Prepare

The most important things to bring with you to the Shoreline are an open mind and a willingness to get DIRTY! Wearing old clothes and shoes is essential for exploring this muddy habitat. Previous participants have also brought extra shoes and socks for the ride home. Since our program is primarily an outdoor activity, dress in layers. In our experience, students can have a wonderful time in inclement weather if they are dressed properly. Programs that are longer than 3 hours have a thirty minute lunch break. Ask your students to wear sunscreen and carry extra water. It's a good idea to have students use the restroom

Notes for Chaperones

Chaperones are an important part of the field trip experience. Without their help, it would not be possible for you to bring your students on field trips. Please encourage your chaperones to participate in the program, act as role models for good student behavior and help to keep an eye on students and potential discipline issues. We really

School Program Fees, 2004-2005

| Program Title | Length | District* | Out of District | Recommended Grades |
|-----------------------|-------------|-----------|-----------------|--------------------|
| Salty Stories | 1 hour | \$91 | \$112.50 | K - 1st grade |
| Saltmarsh Wonders | 2 hours | \$141 | \$174.50 | 2nd - 3rd grade |
| Shoreline Discoveries | 3 hours | \$179 | \$221.75 | 3rd - 6th grade |
| Wetland Ecology | 4 hours | \$211 | \$262.50 | 4th & up |
| Mudlab Only | .5 - 1 hour | \$64 | \$80 | All ages |
| Outreach Programs | 1 hour | \$91 | \$112.50 | All ages |

Call (510) 670-7270 Wednesday through Sunday to register for your spring program.

*Schools and groups within Hayward, Castro Valley and San Lorenzo Unified School Districts.

Your Reservations, Please

| Season | Registration Begins |
|--------------------|----------------------------|
| Spring/Summer 2005 | Now Accepting |
| Fall/Winter 2005 | Wednesday, August 24, 2005 |
| Spring/Summer 2006 | Wednesday, January 4, 2006 |

Tide Table

Plan your field trip when the mid-morning tide is low so your class can see the marshes and the mudflats. These days will get booked fast, so sched-

| Date | Low Tide |
|-----------|----------|
| Feb. 16th | 1:40 pm |
| Mar. 2nd | 11:19 am |
| Mar. 3rd | 12:32 pm |
| Mar. 4th | 1:45 pm |
| Mar. 16th | 11:35 am |
| Mart.17th | 12:47 pm |
| Mar. 30th | 9:52 am |
| Mar. 31st | 10:55 am |
| Apr. 1st | 12:08 pm |
| Apr. 13th | 10:52 am |
| Apr. 14th | 11:48 am |
| Apr. 28th | 10:38 am |
| Apr. 29th | 11:40 am |
| Nov. 14th | 9:32 am |
| May 11th | 9:37 am |
| May 12th | 10:21 am |
| May 13th | 11:10 am |
| May 26th | 9:33 am |
| May 27th | 10:26 am |

Thank you for your Feedback

After your field trip, teachers are asked to fill out an evaluation. Your experiences are a valuable resource. What were your impressions of your field trip? Do you wish anything had been different? Every piece of feedback we get helps us to better serve you and your students. In your words... "I would like to see more 'then and now' info about SF Bay." -Washington Manor Middle School. "Thank you for showing all of us the true meaning of nature. I really enjoyed the pickleweed." -Angel, Ms. Preminger's class.

Community Involvement for Students

Do your students need or want to be involved in volunteer projects? We need their help and enthusiasm to eradicate the non-native plants that threaten Shoreline diversity. Restoration days are generally held on the second Sunday of every month from 1- 4PM. Meetings involve working and learning techniques of invasive removal, native planting, as well as information about the native plants and animals of the Hayward Shoreline. Refreshments will be provided. Bring gloves or borrow some of ours. Reservations

