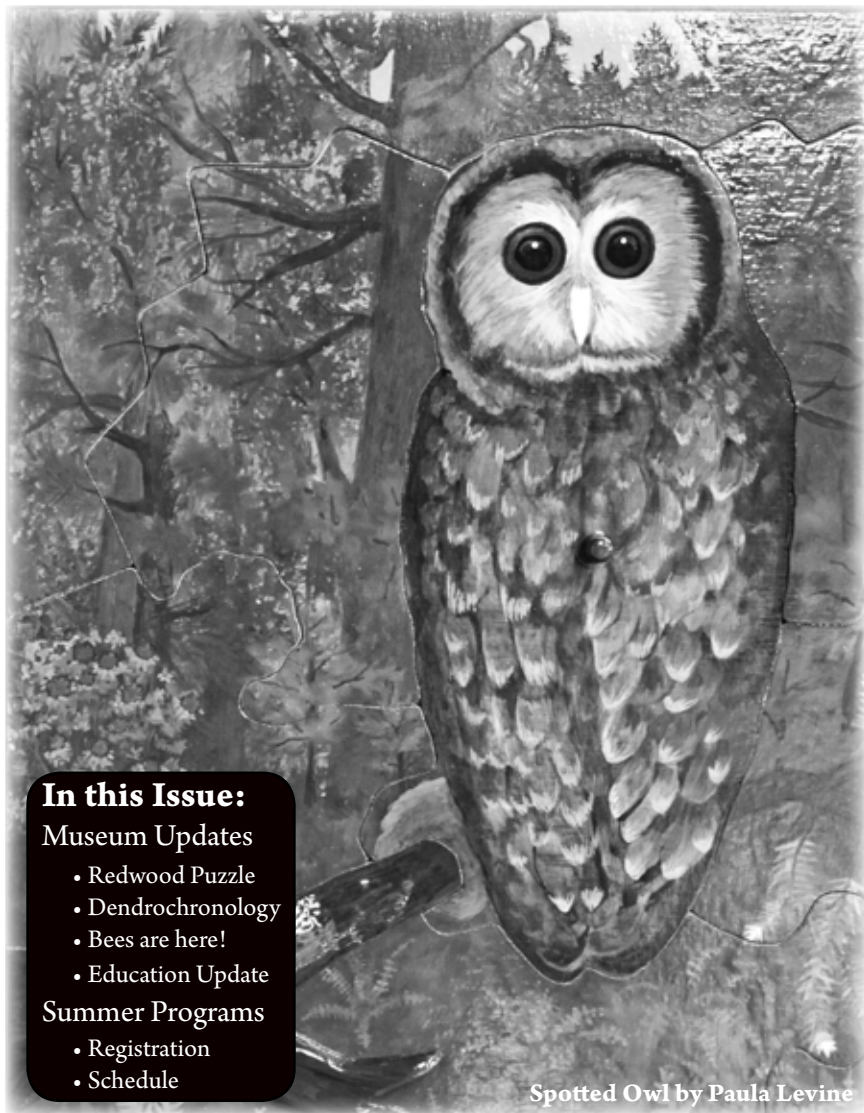




LOOK CLOSER
MAKE CONNECTIONS

SUMMER 2011 NEWSLETTER



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Spotted Owl by Paula Levine

NEWS FROM AROUND THE MUSEUM

Redwood Forest Puzzle By Paula Levine

Paula, from Paula's Puzzles, designed an amazing work of art for the museum. By unlocking the pieces, the explorer can learn about critters in the redwood forest while playing a brain teaser at the same time. Paula took utmost care to sculpt her work to teach redwood ecology facts. Come on by and unlock the secrets of the redwood forest!



Dendrochronology Exhibit

This exhibit was built in part with the assistance of staff at the Institute for Redwood Ecology on the HSU Campus. These scientists use tree cores from the top to bottom of trees to solve redwood mysteries, like how the climate has changed. Also, they are using this information to estimate how old redwood trees are. Visit the museum to learn more today about unlocking redwood secrets!



What can we learn from tree ring data?

- 🔑 What past climates were like (hot, dry, wet, cold)
- 🔑 When fires occurred (based on burn scars)
- 🔑 Forest disturbances (insect infestations or major storms)

With this information, scientists are recreating a tree's growth history over time—thus estimating the age of these ancient beings!

The Bees Return

Thanks to Dick LaForge!

To start the new colony Mr. LaForge brought us one queen and hundreds of workers and pupa which will soon grow into the workers. Our queen is a special lady - having already been the matriarch of giant 20 frame colony where she was a "maniac eggs layer" he said.

Now our queen is only in charge of a 3 frame colony, so she has entered a bit of a downsizing in responsibilities. However she is still in charge of hundreds of workers as well as instructing the construction of the third frame of the new colony. She will surely be a busy lady over the next few months as summer heats up, flowers provide nectar, and pupa grow into more workers.

As you can see in the middle picture to the right, the upper frame is a foundation for a future honeycomb and a place the queen will lay more eggs once that is built. The middle and bottom frames are established and being used for egg laying and honey storage.

With one queen and so many workers the question is -- how do you find the queen? Well it just so happens that all queens born in 2009 (like our queen) were marked with a permanent green dot! Come on by the museum and check out our new hive and look for the queen with a green dot!



UPDATE ON EDUCATION

Did you know school visits to the museum cost \$1.00 per student?

It will be the best dollar ever spent. The HSU Natural History Museum is pleased to offer standards based school programs for kindergarten thru 8th grade. So far in 2011, 25 schools have participated including schools from Humboldt, Trinity, Del Norte and Mendocino counties. We even had a group of students from Oregon.

By the Numbers:

- 624 students
- Preschool 110 students
- Elementary 395 students
- Middle 88 students
- High School 31 students



Ten Humboldt State University students have facilitated the school visit educational programs through the *Future Teacher Program*. These students highlight what an amazing opportunity it is to work with youth and promote science education. For many of the interns it is their first time teaching children about science. The interns have enjoyed gaining practical experience and discovering that they would like to follow a pathway into science education. Teachers have been very satisfied with the lessons presented by our *HSU Education Interns* and they all have said they would bring their class again, next year.

PRE AND POST VISIT EDUCATION OPPORTUNITIES ON THE WORLD WIDE WEB...

We have also had students at HSU help design webquests for exploration of our virtual exhibits to reinforce what can be found in person at the museum. Each activity will guide the learner through the exhibit by asking directed questions about each exhibit.

Visit www.humboldt.edu/natmus and click the EXHIBIT link to explore more.



Life Through Time Exhibit

The Museum's fossils collections comprise one of the great strengths of our exhibits. This series of thirteen display cases illustrates the evolution of the Earth and life from the origin of Earth to the present day.



A FEW FRIENDLY REMINDERS...

Museum Membership –

Museum membership makes a great gift for friends and family!

Members of the HSU Natural History Museum can visit as often as they'd like free of admission and receive a 10% discount on museum store items. Members also receive discounts on programs and HSU Natural History Museum newsletters. Those joining at the family level can take advantage of free admission to over 300 science and technology centers across the country through the Association of Science and Technology Center's Passport Program. Visit our website or stop by the museum for more information on becoming a member.

Annual Memberships:

- Individual \$35
- Student/Senior \$25
- Family \$60 | Includes Passport Program and Family Discount
- Associate \$100 | Includes Family benefits plus License Plate Cover
- Supporting \$250 | Includes Associate benefits plus T-Shirt
- Sustaining \$500 | Includes Sustaining benefits plus Nautilus Pin
- Benefactor \$1000 | Includes Benefactor benefits plus special recognition
- Business Sponsorship | Please contact museum

Museum Store – Looking for educational toys or books about science and nature topics? Come see the new items in our museum store including excavation kits, dinosaur replicas, games, puzzles, magnets, rocks and much more. We also have new field guides and nature titles in our bookstore.



CLIP AND SAVE ON SUMMER PROGRAMS

Members who register their children by May 31st will receive an additional 5% discount on programs!

ALL DAY, WEEK LONG PROGRAMS

Wild in the City

June 27 to July 1

Ages 6 to 9

10 am to 4 pm

\$150 members (\$170 non-members)

Instructor: Suzie Fortner

Hummingbirds, wildflowers, insects, banana slugs, raccoons and foxes... we don't have to go far to experience nature, there is wildlife right in our own city! Learn about the plants, and animals in and around our neighborhood while playing games, making crafts, and singing songs. We'll meet at the Museum every day and take daily outings to nearby natural settings to find out more about these diverse habitats and the nature that is all around us.

OFF SITE AND FIELD PROGRAMS

Coastal Connections

July 11 to 15

Ages 8 to 11

10 am to 4pm

\$150 members (\$170 non-members)

Instructor: Suzie Fortner

Field Assistant: Naomi Marshall

Locations: Humboldt Coastal Nature Center

In partnership with Friends of the Dunes.

Do you like making sand sculptures? Enjoy digging in the mud? The best way to learn about our coast is by getting sandy and muddy! We live near some amazing habitats such as beaches, dunes, wetlands, and mudflats. Explore all these places while learning about the animals and plants that live there through games, crafts and hands-on exploration.



Redwood Rangers

Program Times & Age Groups

July 18 to 21	Ages 6-9	1pm to 4 pm
	Ages 10-13	9 am to noon
July 25 to 28	Ages 6-9	1pm to 4 pm
	Ages 14-17	9 am to noon

\$85 members (\$95 non-members)

Instructor: Naomi Marshall

Location: Arcata Community Forest

This is an experience-based camp where we will hike in the unique redwood forest ecosystem. Through a variety of games, art projects and exciting hands-on activities we'll learn about the birds, plants, trees and mammals of the coast redwood forest. Students will gain an understanding of the interconnectedness of forest organisms including our role as humans.

Redwood Rangers is being offered to provide participants an opportunity to create a full day program. Participants may sign-up for only one camp if a half day program is desired. Center Activities is offering a Youth Climbing Camp at HSU Student Recreation Center. Please register with Center Activities for the climbing camp and register with the Natural History Museum for Redwood Rangers and supervised lunch hour.

Supervised lunch break between camps \$20 members (\$25 non-members) for the week. Museum staff supervises lunch and recreation activities between camps for those students enrolled in both the Youth Climbing Camp and Redwood Rangers at the Redwood Bowl.

WEEK-LONG SCIENCE PROGRAMS

Go Team Green!

June 20 to 24

Ages 4 & 5 10 am to noon \$65 members (\$75 non-members)

Ages 6 - 8 1pm to 4 pm \$85 members (\$95 non-members)

Instructor: Patti Johnson

In partnership with the Arcata Community Recycling Center.

The Earth takes care of all of our needs and sometimes it needs us too. Find out how to help the Earth and join Team Green where you'll practice being an energy officer and litter getter. Hear all about 4 fantastic R words and exactly what they mean. Make friends with compost critters, create toys from trash, and turn old paper into new. Turtle will tell you all about his mishap and share ways you can help wildlife. The class also visits the Recycling Processing Center to see how our cans and containers become useful again. A week on Team Green and you will go home with a worm bungalow, a solar toaster, and all sorts of ways you can help your friends become Team Green kids too.



Space Rocks!

July 11 to 15

Ages 6 – 9 9am to noon

\$85 members (\$95 non-members)

Instructor: Elena George

Greetings fellow Earthlings! Did you ever wonder what makes the Sun rise and set or why we only see one side of the Moon? Or why is Pluto NOT a planet? Could there be extraterrestrial life on another planet some where in our Galaxy? What about telescopes? How do they work? Is traveling at light speed possible? There are many questions that Astronomy has answered so that we could now understand how life came to be on this planet. Your mission, should you chose to accept it, is to explore your physical intuition by learning the astronomical features of our Solar System and the Universe.

To the Stars and Beyond

July 18 to 22

Ages 4 & 5 10am to noon

\$65 members (\$75 non-members)

Instructor: Elena George

Greetings fellow Earthlings! Did you know that you're made of stardust? Come learn about what makes stars shine and what they have in common with you. How big is Space? Contemplate nebula and the properties of planets while expanding your imagination as we journey through the Universe. We will see what happens in a Black Hole, how supernovae shine brighter than anything in the Galaxy when they explode, and much more. Astronomy at the Natural History Museum will be a BLAST!

WEEK-LONG SCIENCE PROGRAMS

Wondering About Wildlife

July 25 to 29

Ages 4 & 5 10 am to noon

\$65 members (\$75 non-members)

Ages 6 - 8 1pm to 4pm

\$85 members (\$95 non-members)

Instructor: Kirsten Reddy

Let's make some observations about wildlife being everywhere. With these observations we quickly realize the variety of wildlife and the unique adaptations some animals have for survival. We will investigate what a habitat is and what a habitat provides for organisms. There will be a field-trip to Redwood Park to explore an environment that humans and wildlife share.

Nature Detectives

August 1 to 5

Ages 4 & 5 10 am to noon

\$65 members (\$75 non-members)

Ages 6 - 8 1pm to 4pm

\$85 members (\$95 non-members)

Instructor: Patti Johnson

Learn how to uncover some of the mystery of nature as a Nature Detective. Keeping our eyes open and our ears too, we can become keen observers of nature. Equipped with camouflage capes you'll learn to blend into the shy & secretive world of animals to understand them better. Use magnifiers to go on a mini beast safari and discover nature at "night". You'll practice finding what you're looking for with just your nose, just like some animals do. By the end of the week you will go home with a kit full of simple tools and a brain full of knowledge to help you observe and discover the wild nature in town, in the dunes, and in the forest.

MEET THE INSTRUCTORS:

Suzie Fortner grew up in San Diego, Suzie spent a lot of time tide pooling as a child – collecting shells and poking anemones. Ever since she has been passionate about nature, and especially coastal environments. Suzie received a Bachelor's degree in Marine Biology from UC Santa Cruz, and a Master's degree through the Environment and Community program at HSU with a focus on nature education. She has over six years of nature education experience, and has worked in a variety of education programs all along the California Coast. Suzie has been involved with education programs at the Natural History Museum since 2006, and currently works at Friends of the Dunes as the School Programs Coordinator.

Patti Johnson has engaged children to appreciate and investigate the natural world for more than decade. A self taught naturalist with a diverse background having worked for an outdoor school in the Sierra Nevada, an environmental education camp on the Mendocino coast, and a forest & wetlands education program in the Appalachian mountains of Virginia. Currently Patti is inspiring youth to conserve resources and be waste aware as the Education Specialist for the Arcata Community Recycling Center.



Naomi Marshall is a senior at Humboldt State University. Her major is Liberal Studies Elementary Education with an emphasis in science, and a minor in Studio Art. She has worked with children in the local schools as part of her educational training, and in summer camps in Mendocino, CA, as well as here in Arcata. Naomi is currently a student intern at the Natural History Museum.

Elena George has recently finished her B.S. in Science Education at Humboldt State. She has a diverse academic background in science and mathematics. Her academic interests range from Physics and Astronomy to Cell Biology and the Philosophy of Science. She has been involved in astrophysics research projects during her academic career at HSU; one at Arecibo Radio Telescope in Puerto Rico and another at San Diego State University. Elena was recently granted admission to the Secondary Education teaching credential program at HSU and is planning to receive her credential in both Math and Science in 2012.

Kirsten Reddy graduated this spring from HSU with a B.S. in Environmental Management and Protection, with a concentration in Environmental Education and Interpretation. She has been involved in community events such as March for Parks. She has recently completed a semester internship here at the museum teaching K-8th graders about the Natural Sciences.