The **Ponderosa**

The Pine Ridge Association Newsletter
Henry W. Coe State Park

Late Spring 2001

From under My Brim

by Barry Breckling

The Perfect Storm

It was a bright and stormy night . . . .

But wait. I need to take you back a full three nights if you're going to understand the immensity of this storm. It was a dark and peaceful Tuesday night in late March, March 27th to be exact. A sliver of a moon was setting below the distant western ridges. The earth seemed peaceful. But millions of miles away, an immense storm, one that had been brewing for weeks, sent its tremendous power towards Coe Park.

The storm started as a tiny spot, but it quickly grew until it erupted into a violent storm 14 times larger than the earth with winds that exceeded a million miles per hour . . . .

Knock, knock, knock. "Hey Barry and Judy, I know you're probably peacefully dreaming, but you really need to wake up and come out here and see this!"

"Winslow, is that you? What in the heck are you doing, knocking on our door at this hour. It's almost 11 o'clock!"

"You guys really need to see this. The northern sky is a blazing red. It must be the aurora borealis, the northern lights, right here at Coe Park!"

So there we were, Ann and Winslow Briggs, Lisa Thornquist, Judy, and I sitting in front of our house on Friday night watching the northern lights for over an hour. The aurora varied from bright red to dark pink and grew and shrank in size, sometimes covering most of the northern sky. There were darker streaks that seemed to be emanating from due north, and for a while the horizon glowed as if a strange, very bright, yellowish-green, full moon was about to rise. Lisa had come up to the park because she'd read that the northern lights might be visible this far south. She'd found some good information about the aurora borealis (in the southern hemisphere they are called the aurora australis) on a website: *www.spaceweather.com.*

Active Regions and Sunspots

The show was such a wonderful experience that I wanted to learn more about the phenomena. The first thing I learned was that the northern lights we saw had their genesis in a storm, a really big one. This storm, named AR9393, is actually an "active region" on the sun, and active regions may contain one or more sunspots. The size of sunspots is ex-

Inside this issue . . .

Websites on solar weather and aurora borealis

Special status of the PRA as a nonprofit organization

A complimentary issue of a magazine was sent to you

Treasurer's report

. . . and more!

pressed in millionths of the sun's visible area. Large sunspots are usually between 300 and 500 millionths. The sunspot in AR9393 has been as large as 2,400 millionths, the largest sunspot in a decade. The Great Sunspot of 1947 was over 6,000 millionths!

Sunspot and associated solar flare activity is cyclic, rising to a two-year period of maximum activity level about every 11 years, and 2000 and 2001 are years of maximum activity.

Galileo, in 1613, was the first person to see sunspots, viewing the sun through his telescope, which gave him permanent eye damage. We should **never** look directly at the sun and **never** use binoculars or a telescope to directly view the sun. Doing so can cause severe eye damage or even total blindness. You can use binoculars or a telescope to project the sun's image on paper. To learn how to do this, check out the "safe solar observation" section on the spaceweather.com website. Using 8-power binoculars as a projector and a paper plate as a projection screen, I was able to see the AR9393 sunspot, and with a 22-power spotting scope, I could also see a number of smaller sunspots.

Solar Flares

It was out of AR9393 that a particularly large part of the storm, a solar flare, launched into the sun's atmosphere, spewing tiny particles and magnetic fields towards the earth. The solar flare was many times larger than the earth, producing solar winds well over a million miles per hour, and it had the power of millions of 100-megaton hydrogen bombs all exploding at the same time.

Solar flares are classified according to their x-ray brightness into three classes. Smaller ones are C-class and have few noticeable consequences on the earth. M-class flares (10 times the size of C-class) are medium sized and often cause brief radio blackouts in the polar regions of the earth. X-class flares (100 times the size of C-class) are major events. They can cause radio and TV static, compasses to point in the wrong direction, GPS malfunctions, planet-wide radio blackouts, even damage to power generating systems. In 1989, a large flare knocked out the east coast Canadian power grid for nine hours. Very strong solar flares can also cause auroras to be visible in the night sky as far south as Mexico. AR9393 has produced X-class flares.

Solar Wind

The sun is constantly giving off energy. We see it every day as light, but it also consists of non-visible rays (this is radiation across the entire electromagnetic spectrum, from long wavelength radio waves, to visible light, to short wavelength x-rays and gamma rays). The sun also gives off electrified particles. All these rays and particles form the solar wind.

Solar flares release large amounts of the electrified particles, causing a strong solar wind gust that explodes out into the solar system. The solar wind may head away from the earth or it might head right at it. It depends on what direction the sun and the solar flare are facing as it explodes (the sun spins on its axis every 27 days).

Auroras

The earth is surrounded by a magnetic field that works like a mirror to reflect the sun's solar wind, which would otherwise fry us in short order. When heavy solar winds hit our magnetic field, some of the particles speed up as they travel along the lines of the magnetic field. Their increased speed causes the solar wind particles to gain energy. As the energized particles hit oxygen and nitrogen atoms in the earth's upper atmosphere, light energy is released, causing the aurora borealis. It's like neon atoms in a tube when you shoot electrons (electricity) through the tube—you get neon light. If the particles happen to be high altitude oxygen (up to 200 miles above the earth), you get the rare all-red auroras. If the particles hit oxygen at lower levels (about 60 miles high), you get brilliant yellow-green auroras. When nitrogen atoms and certain types of particles collide, blue light is produced, while red light is produced when other types of particles impact nitrogen.

An exceptionally strong solar wind from particularly strong solar flares from the unusually large active region 9393 hit the earth on Friday night, March 30th, and we were there to see it all. So if someone wakes you from a dream and tells you a storm with million mile an hour winds has turned the sky brilliant red, don't take their word for it—go see for yourself!

An Update

Lisa has continued to follow AR9393 as it has moved across the face of the sun, and she sent me this update. Active region 9393 has since produced the largest solar flare ever recorded in the 25 years of satellite-based solar monitoring. However, that flare was directed away from earth and did not cause any problems with radio or power grids here. Although AR9393 has moved around to the back side of the sun, new sunspots are emerging on the sun's surface all the time. We still have many months until the end of the solar maximum, and there may be other chances to see a local auroral display before the end of the year.

For ongoing, up-to-date information about solar weather and aurora, including forecasts, satellite photos, and video clips, visit the following websites:

www.spaceweather.com
sohowww.nascom.nasa.gov
www.sec.noaa.gov/pmap

Hound's Tongue
Cynoglossum grande
Borage/Forget-Me-Not family

A Poem
by Kate Stafford

Gnarled oak limbs
reaching to the sky
    echoed
in Cloud Calligraphy

(Editors note: This poem was included in a letter received from Kate Stafford, a nature photographer and writer, after she camped at Coe over the New Year's holiday. An excerpt from this letter is printed below.)

For many days over the New Year's Holiday I camped at Coe, rising with the dawn and savoring the last rays of the sun. The sounds of the coyotes and owls gladdened the ear, and even the wild pigs kept one alert and appreciative of starlight. The blossoming of the big-berry manzanita seemed to bring in a bounty of bees, and all seemed to hum to a harmonious beat. Thanks for your efforts to protect this most blessed land.

Park News
by Kay Robinson
Park Superintendent

I have just completed a 20-hour training course on Cooperating Association Partnerships in the company of PRA board members Ann and Winslow Briggs. Last year board member Dave Perrin accompanied me during this very enlightening course. California State Park Cooperating Associations follow a unique formula among not-for-profits. Yes, the PRA is a nonprofit organization and has all the rights, benefits, and responsibilities of such **and** it also works under the auspices of State Parks by entering into a contract with the state for a very specific purpose.

That specific purpose is **interpretation.** As a 501(c)(3) organization, the profits of the Pine Ridge Association must be reinvested into California State Parks, specifically at Henry W. Coe State Park. Because of the need to determine liability, in the early 1990s the Department of Parks and Recreation separated the functions of fund raising (Cooperating Associations Program) and park volunteerism (Volunteers in Parks Program). The word "volunteer" itself is very confusing. We have volunteers who staff the visitor center, who work on trails, who do springs maintenance, who put on the special events, who serve on committees and boards, and who do a myriad of other "jobs" in, about, outside of, and for the park. Some of these jobs are as volunteers for the association (PRA owns liability), and some are as volunteers for the park (State owns liability).

The workshop covered a wide range of topics such as Interpretation, Collections Management (artifacts and museum collections), Strategic Planning, Board Development, Fundraising, and Financial Management. In 1988, then-president of the Pine Ridge Association Doug Jones worked the board through a session on strategic planning wherein the PRA's mission, vision, goals, and objectives were identified. After this most recent session, it became obvious to the three of us from Coe that it is time once again to tackle this important task.

There are several projects and programs in which the PRA is now involved or wishes to consider that would stand to benefit from a review of our position, goals, and capabilities. The potential for grant opportunities for the raising of funds for the Visitor Center is one obvious example of a project that would benefit. Although I have been to this workshop in past years, it is always enlightening and stimulating to attend. The networking with other DPR employees and association members is one of the most valuable aspects. And, although it

could be termed "information overload," I know Ann, Winslow, and, previously, Dave took away with them valuable information and personal contacts.

Coe ♫

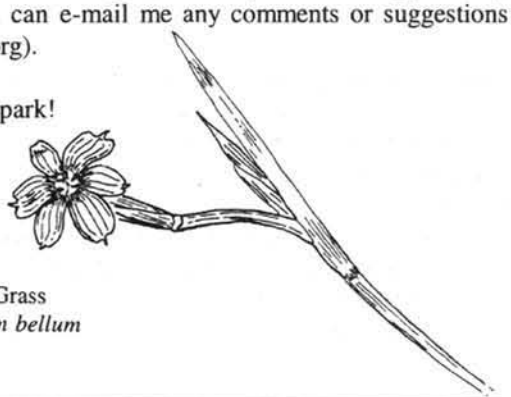
by Barbara Bessey, President, PRA

By the time you receive this issue of the newsletter, you will probably also have received a copy of a publication of the magazine *Bay Nature*. This is a new publication that focuses on the natural history of the Bay Area. In this April issue will be an article on the natural history of Mount Hamilton, which the publishers thought might be of interest to our association's members. Information about Coe Park is scheduled to be included in a future issue. The publishers offered to provide this copy to us at no charge. The board of directors discussed this proposal, and we decided that, while the magazine might be of interest to our members, we could not release a copy of our membership list to the magazine. Therefore, we printed the mailing labels and placed them on each copy. We also placed a notice on each issue indicating that it was a complimentary copy provided by the publishers but we did not release our membership list to them. The board felt that this was an important distinction to make; I would be interested in what you think.

To me, spring at Coe means that there are lots of beautiful wildflowers in bloom. If you cannot participate in one of the wildflower walks offered by volunteers on Sundays, you can check out Dave Hildebrand's flower pictures on our website to learn the names of the beauties you saw on your hikes. This is also a wonderful time of year to listen to (and watch) birds. Coe is a special place for birdwatching. It might interest you to know that more than 130 species of birds have been seen in the park. Because of the diverse habitats in the park, ranging from almost desert-like conditions to woodlands and lakes, you can see many kinds of birds, from roadrunners to water birds like buffleheads and mergansers, to songbirds.

This is your organization. Get involved in something that interests you. Let me know if there is something you would like to participate in but you haven't yet seen an opportunity to do so. You can e-mail me any comments or suggestions (bbessey@air.org).

See you at the park!



Blue-Eyed Grass
Sisyrinchium bellum
Iris family

Treasurer's Report for 2000

by Dennis Pinion

The Pine Ridge Association continues to do well, thanks to the support of its members. During the past year, liquid assets increased by $44,000 to $200,000, and total equity increased by $56,000 to $288,000. Net income for the year increased by $18,000 to $55,000, due partly to some 1999 dues and donations being credited to the year 2000. Expenses increased by just $450 to $23,000. Note: Most of the PRA's liquid assets and investments are being held in restricted accounts for the planned Visitor Center expansion.

Help Needed for Annual Rummage Sale

by Priscilla Campbell

The annual rummage sale to benefit the Visitor Center Expansion Fund will be held August 4–5 at Nordstrom Park in Morgan Hill. Helpers are needed for pick-up, pricing, set up, selling during the sale, and tear down on August 5.

Donations are also needed. Simplify your life and clean out your cupboards, attic, and garage. Big sellers are books, cookware, ceramics, children's arts and crafts, games, furniture, kitchen items, sports equipment, tools, clothing, and electronics. **Donated items should be clean and in good repair or working order.** We are collecting saleable items now, so we can start sorting and pricing. We have a storage site in Gilroy. Please call Coordinator Priscilla Campbell (408/842-2343) if you would like to help or if you would like to make a donation. Priscilla and Dan McCranie (408/848-3223) are willing to provide help in getting your donations to the storage site.

Donations are tax-deductible to the extent provided by law. All profits from the sale will benefit the Visitor Center Expansion Fund.

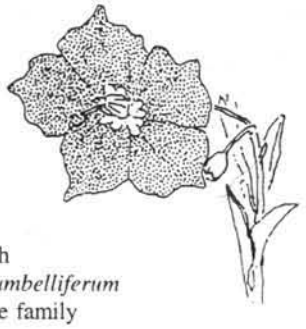
Lupine
Lupinus sp.
Pea family

New Members through March
by Margaret Mary McBride

We are pleased to welcome the **new members** listed below. Thank you for your support, and welcome to the Pine Ridge Association!

James Bailey, San Martin
Karen Bessey Family, Rocky Mount, NC
Thelma Bessey, Indianapolis, IN
Jon Blackner, Sunnyvale
Cameron Bowers, Morgan Hill
Rodney Brown & Cornelia Woodworth, Cupertino
Victor Bubbett, San Jose
Richard Byers, E. Palo Alto
Marion J. Carter, San Jose
Mark D. Dickey, San Jose
Maggie Faler, San Jose
Pat & Mike Fast, San Jose
Robert Howell, San Jose
Susan Hund, Livermore
Hans Peter Kestenholt, Switzerland
John Kim, Mountain View
Dave & Kathy Kocharhook, Mountain View
Nedra & Joe Martinez, Hollister
Bernd Meyer, Santa Clara
Dale Mitlolovich, Sunnyvale
Ansehl & Kathleen Pike, Los Gatos
Rosemary & Bruce Rideout, Gilroy
Lydia Ridgway, Cupertino
Richard Siemens, San Jose
Arline Silva, Gilroy
Arthur Silva, San Jose
Richard & Denise Smith, San Jose
Barbara Spencer, Los Gatos
Larry Speth, Morgan Hill
Bill Sylvester, San Jose
Curtis Tingley, Morgan Hill
Anne Wiley, San Francisco
Fred & Chikako Whitwer, San Jose

We would like to remind you to let us know of any change of address so your issue of *The Ponderosa* will follow you.



Blue Witch
Solanum umbelliferum
Nightshade family

PRA Calendar

Friday, May 4, to Sunday, May 6: **First Spring Backpack trip.** Join Irwin and Janet Koff on this two-night trip to Madrone Soda Springs with a full moon. Call them at (408) 293-8194 to receive more information and to reserve a place on the trip.

Saturday, May 5: **The Spring Trails Day.** Help build or maintain trails in Coe Park. To see what a typical day is like, check out the description on our website: *www.coepark.parks.ca.gov/trainwork.html*. For more information or to sign up, please call Nedra Martinez, the Trails Day coordinator at (408) 848-4006.

Sunday, May 13: **Mother's Day Breakfast.** Tickets for this very popular event are now available for purchase.

Friday, May 25, to Monday, May 28: **Memorial Day Backpack trip.** Join Irwin and Janet Koff on this three-night trip to visit Mississippi Lake, Coit Lake, and Kelly Lake. Call them at (408) 293-8194 to receive more information and to reserve a place on the trip.

Saturday, June 16: **Hunting Hollow Run/Walk.** Save this date for the 10K run and 5K walk at Hunting Hollow. Information is on the flyer inserted in this issue.

Mule Ears
Wyethia helenioides
Sunflower/composite family

Nonprofit Org.
U.S. Postage Paid
Morgan Hill, CA
Permit No. 160

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http://www.coepark.parks.ca.gov

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The Ponderosa is a publication of the Pine Ridge Association with approximately five issues per year. The PRA's mission is to enhance and enrich the public's experience at Henry W. Coe State Park through education and interpretation. Articles and artwork relating to the history, natural history, and management of the park are welcome. Please send submissions to the editors at 127 Glenwood Avenue, Woodside, CA 94062-3512; or call 650/851-7813.

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