



Mountain Echo

THE NEWSLETTER OF SEMPERVIRENS FUND

FALL 2018

Expanding the Redwood Core



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LETTER FROM THE EXECUTIVE DIRECTOR



This edition of the Mountain Echo describes three redwood forest properties that Sempervirens Fund is trying to buy to ensure they remain protected, forever. These properties are but a few of those that we are aiming to secure over the next couple of years — and only a fraction of the ones considered for possible purchase. Because not all redwood forests are created equal, we utilize analytical tools and criteria to identify those properties that have the most superlative conservation values and therefore are worthy of our precious conservation dollars. In the coming year, you are likely to hear from us about more opportunities to save the redwoods we all love. We are unsure why, but many significant redwood properties that have long been unavailable are starting to come on the market, and we hope to make the most of this extraordinary time.

When we acquired redwood forests a decade ago, we added them to the California State Park system, helping to create and expand five state parks here in the Santa Cruz Mountains. While we continue to purchase additional acres of essential redwood forestland, integrating those forests into the state park system is not as easy as before. Instead, we own and manage these forests, which requires us to invest heavily in their stewardship. In the following pages you will learn about just a handful of our current stewardship activities. You will see how we take care of these forests – monitoring and evaluating their health; working to restore them if needed; and helping them stay healthy so they can resist the negative impacts of climate change and other threats they may face.

As we head into autumn and reflect on a year that is nearly over, my colleagues and I give thanks for your support. It's an exciting time and there is a lot of work for us to do — together.

Thank you,

Sara Barth, Executive Director



Purple lupine in full bloom next to San Vicente Redwoods

Photo © Laura Nclendon/SVF

Expanding the Redwood Core

You already know that redwood forests are pretty amazing. They are home to mountain lions, bobcats, coyotes, salmon, marbled murrelets, and, of course, banana slugs. They help clean the water we drink and the air we breathe. By capturing carbon dioxide from the atmosphere and storing it in their beautiful trunks and far-reaching, interconnected roots, redwoods also play an important role in maintaining the Earth's climate.

Because of redwood lovers like you, tens of thousands of acres of coast redwood forests are protected up and down the Pacific coast of North America, many of them within national, state, and local parks. Because of you, Sempervirens Fund already has protected more than 34,000 acres in and around Big Basin Redwoods, Castle Rock, Butano, Henry Cowell and Portola Redwoods State Parks as well as in the San Vicente Redwoods.

But this probably isn't news to you.

The big news is that, now, you can help protect 500 acres more!

We are working to acquire and protect three magnificent redwood properties that eventually will become additions to Big Basin Redwoods and Castle Rock State Parks and the park-like San Vicente Redwoods (which Sempervirens co-owns with Peninsula Open Space Trust). These areas protect habitat for wildlife, watersheds vital to salmon, and some of the only remaining stands of old-growth redwoods in the Santa Cruz Mountains. Now, just as a redwood adds a new layer of growth each year, we are continuing to add new rings of protection by expanding core redwood areas that we have protected in the past.



Photo © Laura McLendon/SVF

Ponds are rare in the Santa Cruz Mountains but critical for aquatic species like the endangered red-legged frog.

Expanding the redwood core of the Santa Cruz Mountains is not only an important goal — it is imperative.

To help understand why the opportunity to protect an additional 500 acres of redwood forests is big news, consider first what has been lost. In the mid-1800s, redwood forests covered roughly 2 million acres from Big Sur, California, to southern Oregon. Today, less than one quarter of those forests exists, and a mere 5% of old-growth redwoods remain standing. So little of the original redwood forests is left that every additional acre of protected redwoods is important.

By acquiring properties adjacent to existing protected areas, we ensure the protected areas are buffered and insulated from threats posed by development pressures beyond their borders. Expanding and connecting existing protected habitat also helps ensure that wildlife has sufficient space to roam undisturbed. The larger and more intact these conserved areas are, the better they function as the “natural infrastructure” of this region, storing carbon and cleaning our air and water.

This is why we are particularly excited about the three acquisition projects happening right now. We are in dialogue with landowners to acquire 130 acres next to Big Basin Redwoods State Park, 50 acres next to Castle Rock State Park, and 320 acres that buttress San Vicente Redwoods. By doing so, the boundaries of each of these preserved redwood forests will be extended, so that the wildlife habitat won’t be impacted by construction of new roads or homes and the natural systems at work can continue to benefit communities in the Santa Cruz Mountains.

Of course, each of these acquisitions is also safeguarding wonderful redwood trees. The forests on all three properties comprise primarily second-growth redwoods along with some Douglas fir, tanoak, madrone, and bay laurel trees. Some of the redwoods on the properties are now over 100 years old. They are strong and healthy, and, with time and good stewardship, will grow into the old-growth redwoods of the future.



Photo © Laura McLendon/SVF

In addition to redwoods, we are saving other valuable habitats found on the three properties, including extensive meadowlands, maritime chaparral, the unusual Santa Cruz Sandhills (found only locally in the Santa Cruz Mountains), and riparian areas. Meadowlands — particularly meadows within a more broadly forested landscape — abound with biodiversity. They harbor a wide variety of plant species and provide important sources of food for wildlife, including deer, badgers, birds, and pollinators. Maritime chaparral, which grows in some of the higher elevations, is an uncommon plant community found only in smaller patches near the coast. Because of its rarity, maritime chaparral has been designated an Environmentally Sensitive Habitat Area by the State of California. The streams within these properties, which are located in the San Lorenzo River and Scotts Creek watersheds, are important sources of water for people and wildlife.

These acquisitions will grow the perimeters of protection around Big Basin Redwoods State Park, Castle Rock State Park, and the San Vicente Redwoods. As a result, the cores of these safe areas will be strengthened. The trees will stand tall and the expansive forests will continue to function as the lungs of our urban region. The water that drips from green needles of the redwoods onto the cool forest floor will continue to flow into the creeks and streams.

Expanding the redwood core of the Santa Cruz Mountains is not only an important goal — it is imperative. Thank you for helping protect the next 500 acres. 🌲



Photo © Ian Rowbotham/SVF

What on Earth is Ste

You have probably been hearing the word “stewardship” for a while now. It’s a popular word these days, and, although the Sempervirens Fund staff have gotten pretty familiar with it, we want to make sure you know what we mean when we say “stewardship.” After all, it is because of you that we are able to steward redwood forestlands, an activity that is at the core of our mission.

If you put a group of conservation professionals in a room together to define “stewardship,” a long conversation would commence. That’s because stewardship can comprise a whole host of activities associated with caring for the

Photo © Ann Blanchard/SVF



The coyote brush (the smaller bush and mostly bare one too), lupine (blue flowers), Monterey pine (with the orange catkins growing on it), and coast live oak tree in this photo display some of the botanical diversity found on Cotoni-Coast Ridge.

Purple needle grass was an important food source for Native Americans in California. Designated California’s State Grass, purple needle grass is considered a sensitive vegetation type by the California Department of Fish and Wildlife.



Photo © Alice Cummings

Botanical Bounty

Earlier this year, you helped us to purchase and protect the Cotoni-Coast Ridge property near the town of Davenport. This beautiful 106-acre property sits on the western slopes of the Santa Cruz Mountains overlooking the Pacific Ocean. Unlike most of our properties, only about one quarter of Cotoni-Coast Ridge is redwood forest; the balance sustains a mix of iconic California coastal grasslands, coastal scrub, Monterey pine, Douglas fir, and oak woodland.

Because Cotoni-Coast Ridge possesses a wide assortment of habitats, the first step in stewarding the property is to better understand it. Before purchasing any property, we perform multiple site visits to assess conditions and identify the natural resource values. For this property, however, we wanted to deepen our knowledge of what grows on the property, which areas have the highest stewardship needs, and what are the best ways to address those needs. To gather this information, we hired a botanist to research

the area. He is now spending time on the property in order to study it up close.

So far, the research indicates that this land is even more exceptional than the initial evaluation indicated. The amount of intact native vegetation is highly unusual, making it exceedingly important for conservation. At least 168 different plant species grow there in eight distinct vegetation communities, including thriving purple needle grass grasslands. California grassland is one of the most endangered ecosystems in the United States and the lovely purple needle grass is becoming increasingly rare in the Santa Cruz Mountains.

Even with more learning to come, this botanical study already is shaping our stewardship plans for Cotoni-Coast Ridge and efforts to protect purple needle grass and many other plants in this captivating landscape.

wardship Anyhow?

land. These stewardship activities vary with the landscape, the property, the season, the history of the land and the future conditions that a landowner or manager desires to create. Stewardship can include planting trees, pulling weeds, improving salmon habitat in streams, tracking wildlife, fixing roads, removing roads, building fire breaks, creating trails, putting up or taking down fences, and more.

Here are just a few stewardship actions made possible by your support.



A curious bachelor group of young mule deer cautiously explores San Vicente Redwoods.

While this intersection may appear remote, this mountain lion is using a route heavily trafficked by wildlife moving between the Big Creek and San Vicente Creek watersheds.



You never know what surprises will appear. An occasional pet peacock dressed to impress may wander over from a neighbor's yard.

Photo © SVF/POST Sensor Cam

Wildlife Watching

Stewarding the forests involves comprehending who uses the land and how they use it. Wildlife cameras play a key role in gaining that knowledge. We install motion-triggered cameras on all of our properties, leaving the equipment in place for months to track critter activity over extended periods. The resulting images tell us so much.

The cameras have captured images of foxes, raccoons, opossums, skunks, badgers, bobcats, mountain lions, hawks, golden eagles, wild turkeys, even a peacock, and other animals doing all sorts of wild things like chewing, scratching, marking territory, howling, playing and running. Last winter we installed cameras at the site of one of our creek restoration projects. The project involved the strategic placement of logs to help create instream habitat for

salmon and other aquatic species, but the cameras photographed bobcats, mountain lions, and other creatures using the logs as bridges to cross the creek. The restoration project provided a benefit for wildlife that we had not anticipated!

While the images are fun to look at, they also inform how we steward the land. We might avoid areas where bobcats are leaving their scent so as not to interfere with potential mating cues. We might route public access away from corridors heavily used by wildlife. If we capture images of human trespassers on our properties, we may need to reinforce our gates or otherwise ensure that trespass is not threatening the land in any way. Monitoring by camera is critical to knowing just what's out there in the wild.

Rocking and Roothing

Did you know that Sempervirens Fund maintains nearly 90 miles of roads, most of which are legacy haul roads from prior logging operations? Many of the roads are no longer in use. In time we hope to eliminate these roads and restore the areas to their natural state. But other roads continue to be needed, allowing access for routine land maintenance and restoration activities. They also enable access for public services, like fire trucks, and in some cases they function as firebreaks, particularly along mountain ridge tops.

Both removing roads from the forest and maintaining roads in good working order compose a big part of our land stewardship activities.

In recent months we have been busy with loud, dirty, vital roadwork in the San Vicente Redwoods. This 8,500-acre property is bisected by Warrenella Road, a long dirt thorough-

fare that is essential for property management today and will likely be a key road for public access in the future. In early 2017, the heavy winter rains severely damaged sections of Warrenella Road, leaving areas unpassable from boulders, sinkholes, and deep cracks in the ground. To prevent further erosion, we have been “rocking” the road.

With our partners at San Vicente Redwoods and skilled contractors, we repurposed “overburden” rock (discarded, unwanted rock) from a defunct quarry on the property. Using excavators, bulldozers, rock screeners, and more, we processed the rock and moved it onto six miles of dirt road to create a solid, yet permeable, surface that can withstand harsh weather and frequent use. This project is a great example of creative reuse — reusing abandoned industrial material to solve road problems.



Photos © Nadia Hamer



For each mile of roadwork completed, we used approximately 2,375 tons of overburden rock from the quarry. Yes, that is almost 30 million pounds of rock!

(right) The same rock that was used to rebuild San Francisco after the 1906 earthquake/fire and to build the Panama Canal now forms a durable pathway on Warrenella Road.





Photo © Ian Rowbotham/SVF

(above) On one of our properties near Boulder Creek, we removed selected trees from the forest, creating more room and reducing competition. Already the forest looks so much healthier!

(right) This shows a dense, overgrown, forest in the Deadman Gulch area in San Vicente Redwoods. Note the old stump at the center. The trees flagged with pink tape will be removed in order to provide the larger, dominant trees with better access to sunlight, water, and nutrients from the soil.



Recreating Resilient Forests

One of the fundamental goals of stewardship is to ensure that the land is robust enough to recover readily from future threats. For Sempervirens Fund, this means that we want the forests to be to be healthy, rich with different species, and able to adapt to change or disturbance. This is no easy task.

Some of the woodlands in the Santa Cruz Mountains are far denser than those in more pristine natural forests. Clear-cut logging in the 20th century left stumps, and from each of these numerous small redwoods now grow. Over the same period, people suppressed wildfires, leading to a greater density of trees than Mother Nature intended. Some fire in the forest is good — it clears brush and thins out the weaker trees, thereby allowing the stronger, remaining trees to thrive. Overgrown forests include small, thin trees with deadened lower branches. With intense competition for sunlight, water and nutrients in these thickets of trees, growth on the forest floor diminishes and forests become less diverse. These forests are also drier, and therefore more

likely to be completely destroyed by fire, as well as more susceptible to disease, pests, and drought.

One stewardship method used to transform these dense pockets into strong, resilient forests is “crown release thinning.” By removing carefully selected trees —usually young, spindly ones— from the forest, we provide more room for larger trees to grow and reduce contention for the life-sustaining resources that allow them to thrive. Over the past two years, we have thinned 110 acres of redwood forests and we plan to thin 500 acres more.

This type of stewardship work is slow going, and, really, it never feels great to cut down a redwood tree. But the remaining trees (and the forest overall) are tougher because of it. Their branches get bigger, stretch out, and create complex canopies in the treetops. As they grow, they sequester more carbon. New growth sprouts on the forest floor. Inch by inch, we are returning these forests to their natural state — resilience. 🌲

Norma Jean Bodey Galiher

Making a lasting impact now and in the future

Photo © Ann Blanchard/SVF



"I'm proud to support an organization that goes back over 100 years, accomplishing exactly what it set out to do from the start — preserve redwoods."

Norma Jean Bodey Galiher

has been part of the Sempervirens Fund community for over 31 years, and her support of our mission has been varied, steadfast, and enduring.

Norma Jean's strong roots in nature were cultivated by her mother and grandmother. Her grandma loved birds; her mom loved flowers; and when she was a child, all of the family vacations were focused on exploring the natural world. Norma Jean loves the outdoors and hikes regularly. She is an active member of a natural history book group (she just finished a book about invasive plants) and has been a docent at Edgewood Park and Natural Preserve in San Carlos for over two decades and at Filoli in Woodside.

Both a student of nature and a natural teacher, Norma Jean believes firmly in the power of connecting people to the land. Time spent in nature helps to seed and nurture the next generation of environmentalists who will grow to value natural lands and open spaces. As Norma Jean puts it, "All of the 'enviros' have grey hair like me, and I'm worried that we're not raising the next generation of stewards. If you don't learn to care deeply about the land, you won't vote for park bonds and for land to be preserved."

When Norma Jean discovered Sempervirens Fund back in the 1970s, she knew she had found a true connection. She says that she's proud to support "an organization that goes back over 100 years, accomplishing exactly what it set out to do from the start—preserve redwoods." Sempervirens Fund has protected tens of thousands of acres of redwood forests where, today, all of us, young and old, can find that true connection to nature, to the land, and to the future.

Norma Jean is a Redwood Ranger, giving monthly to provide regular, reliable funding that helps sustain Sempervirens Fund's redwood protection efforts each and every day. In November 2017 she added Sempervirens Fund to her will, ensuring that her connection to our mission will continue long into the future. Norma Jean, we thank you for your generosity!

If you, too, are planning or considering a legacy gift to Sempervirens Fund, we would love to hear from you. Please contact Barbara Lamb Hall at (650) 949-1453 x 203 or blambhall@sempervirens.org. 🌲

Welcoming New Board Members

We are pleased to introduce you to the newest of Sempervirens Fund's Board of Directors. Please join us in welcoming Gage Dayton and Evan Siegel.



Gage Dayton always has been deeply curious about and appreciative of the natural world, sentiments that eventually led him to a career in the natural sciences. He oversees the UC Santa Cruz Natural Reserves where he helps train the next generation of conservation biologists and coordinates field study opportunities for students. Gage is a member of the Santa Cruz Mountains Stewardship Network and he recently served on Sempervirens Fund's Science Advisory Committee. Because of this connection, Gage already knows us, and many of our partner organizations and agencies, very well. "I am excited to join the Board because I see Sempervirens Fund as a conservation leader in this region, working collaboratively and creatively with private and public partners and because they integrate science into their restoration and preservation efforts to determine the best ways to steward the redwood forest that we all care so much about."

Evan Siegel spends much of his time indoors as a strategy executive for Wells Fargo Bank, but he really loves to be outside in nature. When he moved to the Bay Area for graduate school in the 1990s his connection to the outdoors blossomed, and now he is an avid, skier, trail runner, and hiker. Evan joins the Board in order to bring his two worlds together. "In my professional life I translate strategic goals into high impact actions. I am excited about helping Sempervirens Fund, which is protecting the places I love right here in my own backyard, to take action and reach its conservation goals. It seems like a natural fit."





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Castle Rock State Park Kirkwood Entrance

What makes the new Robert C. Kirkwood Entrance to Castle Rock State Park worth visiting?

- A beautiful, thriving native plant garden
- A restored black oak forest
- Hiking trails
- WiFi with downloadable maps of the park
- An amphitheater for outdoor education classes and celebrations
- Redwood-inspired artwork
- And so much more!

After the rain, the new Kirkwood Entrance will be open to us all. For updates about the grand opening event and other Sempervirens Fund news, sign up at sempervirens.org/castlerockupdates. Thank you for making this possible! 🌲

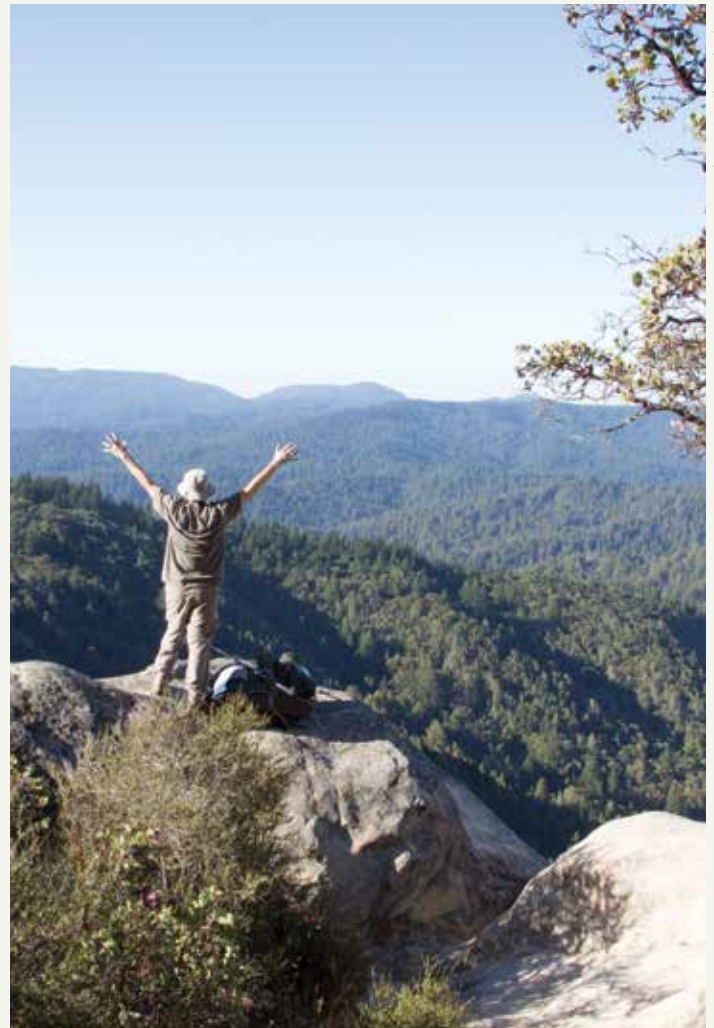


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