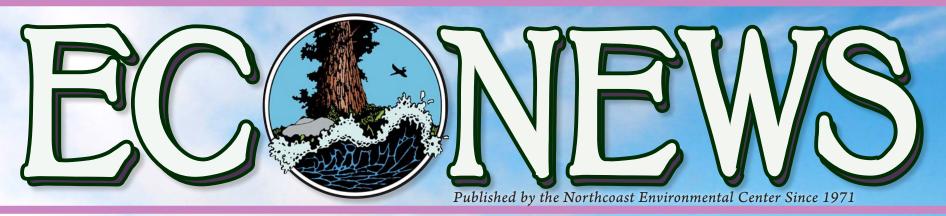
EARTH DAY ISSUE

50 Years of Environmental News

Arcata, California

Vol. 51, No. 3

April 2021





GODWIT DAYS IS ON | WILDERNESS BILL PASSES HOUSE, AGAIN | CARBON FARMING | POST-CAPITALISM CONFERENCE SAVING JACKSON DEMONSTRATION STATE FOREST | EARTH DAY QUIZ | CELEBRATING OUR DUNES | WATER PROTECTORS CURRICULUM

LETTERS TO ECONEWS

We want to hear from you! Write us a letter 300 words or less that's relevant to EcoNews and we'll consider publishing it! The NEC reserves the right to reject any submitted material for any reason.

Email Carolinenecmail@gmail.com



COMMUNITY SUBMISSIONS

We want to feature your work! Do you have nature art you'd like to share? How about photos of your catio, compost bin, garden, solar array, etc? Carolinenecmail@gmail.com



Do you have a burning environmental question? Write to "Dear EcoNews" and we'll get a professional in that field to address your eco quandaries, concerns, and queries.

Email Carolinenecmail@gmail.com

Bouquets

- To Daniel Cordalis for his new role as the Deputy Solicitor for Water at the Department of the Interior! Daniel has more than a decade of experience working on natural resource, complex water and land management issues on behalf of Tribal governments and conservation groups. This new role will surely bring attention to issues important to the people of the Pacific Northwest. Congratulations Daniel!
- Another Congratulations goes out to the Fieldbrook Volunteer Fire Department for receiving a \$20,000 grant from State Farm. Chief Jack Sheppard says they will use it to purchase new equipment that will increase readiness and training for the department.
- To the team at Save California Salmon for releasing their Advocacy & Water Protection in Native California Curriculum! This curriculum is aligned to California State Education Standards for 9th through 12th grades, and includes a teachers resource guide, worksheets, answer guides, and more! For more information, contact Darcey Evans: danevans@ucsc.edu.

NEC HISTORY

- CALL FOR SUBMISSIONS -

Do you have memories of the early NEC that you'd like to share? Photos, recollections, poems or lessons learned from campaigns? Did the NEC launch you into a life of environmental activism? We want to know what the Northcoast Environmental Center has meant to you over the years, whether you were involved right at



the beginning anywhere else within this last half-century. Please send your submissions or article ideas to carolinenecmail@

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NEWS FROM THE CENTER ~~~

Larry Glass, Executive Director Carrie Tully, Admin. Director

Protecting America's Wilderness and Public Lands Act

Our Northwest California Wilderness, Recreation, and Working Forests Act, authored by North Coast Representative Jared Huffman, was package together with many other public lands bills and called Protecting America's Wilderness and Public Lands Act. We are happy to announce that the Protecting America's Wilderness and Public Lands Act passed in the House of Representatives on February 26th! See full story on page 10.

We are very excited and looking toward the next step which is getting introduced in the Senate. I was part of a coalition Zoom call with Senator Padilla's brand new environmental staffer, Sarah Swig, who just finished working for Nancy Pelosi in the House. She had only been on the job for three days, so we're going to give her some time and then reconnect. We are looking to have Senator Padilla introduce it on the Senate side. We're very hopeful given Senator Padilla's progressive record.

USFS Salvage Logging PlansThe US Forest Service is drawing the attention of the NEC and other environmental organizations as it continues to pursue salvage logging plans in the August Complex Fire footprint. One of the more concerning elements of these plans is the use of the prescription "designation by damage class" as the key for determining what trees are cut or not. This concept means that the logger determines at the time of cutting what trees are taken. In the past, trees have been marked ahead of time so we have the opportunity to survey the impact and offer input. Supposedly only hazardous trees are to be taken, but so far what we're seeing is that all trees are being cut.

Climate Update

While we've been focused on the pandemic, the climate continues to unravel. FTake for example the Atlantic Meridional Overturning Circulation, which drives the Gulf Stream current northward. This circulation system brings warm and mild weather to Europe, and to the east coast of the USA. This current has been slowing down and is at its weakest in more than a millennium; climate change being the likely cause. Scientists warn that a further weakening of the Atlantic Meridional Overturning Circulation (AMOC) could result in more storms and more intense winters and possibly more damaging heatwaves and droughts across Europe.

Scientists are also predicting that the AMOC will weaken further if global heating continues, and could reduce by about 34% to 45% by the end of this century, which could bring us close to a "tipping point" at which the system could become irrevocably unstable. A weakened Gulf Stream would also raise sea levels on the Atlantic coast of the US, with potentially disastrous consequences. One thing we can do locally is stop dumping food wastes in the landfills which eventually releases very damaging methane gas into the atmosphere.

Staff Updates

Staff at the NEC have a lot to talk about! In case you haven't caught it yet, they were recently featured in the EcoNews Report on the Saturday, March 20tt show, and were given the opportunity to talk about the important projects that they've been working on. Here's a summary of what they had to say:

Celebrate Earth Week with citizen science, direct-action activism, and fundraising! Our second annual Trash-a-thon is happening April 19-25. This incredible, family-friendly, COVID-safe event was such a success the first time around, we had to bring it back in 2021. Trash-a-thon is similar to a walka-thon, except instead of raising money for miles walked, you're raising money for the number of pieces of trash you pick up. All of the funds raised will be used for the NEC's Coastal Programs. Sign up or donate at yournec.org/trashathon2021.

In continuing to combat litter, another likeminded project of the NEC is the Butt-In: Cigarette Butt Litter Prevention Program. Nearly all cigarette butts are made of plastic, toxic chemicals, and heavy metals. These chemicals leach into the water and soil when littered, which is deadly to wildlife and toxic to humans. Therefore, this program strives to offer cigarette butt receptacles to businesses for little or no cost, in order to provide smokers with a convenient place to put their cigarette butts. yournec.org/butt-in

Our two most recent programs are focused more on community-building. Activate NEC: Community Action Group aims to empower community members to bring their activism to the table. Each month we will be hosting a brief lunchtime meeting to activate our skills and take a stand for local environmental issues. Come ready to take action! yournec.org/activate

The NEC's new program, Thrive: Eco Grief Circle, welcomes community members to join our FREE monthly EcoGrief and EcoAnxiety Circle. This Circle welcomes any and all people looking for a space to express their stories, sadness, worries, anxiety, and fear concerning the state of our planet. We will address topics such as climate change, species extinction, catastrophic fire and other natural disasters, spiritual disconnection, and anything else that is brought to the Circle. Now more than ever it is time to come together, in both mourning these losses and building our future. yournec.org/thrive

GODWIT DAYS FESTIVAL GOES VIRTUAL

Godwit Days Press Release

You may be among the people who've been wondering what is happening with Godwit Days in 2021. Will it again be postponed due to Covid-19?

Well, the suspense is over! The Godwit Days Spring Migration Birding Festival will be offering a free, virtual,

three-day program April 16 through 18. It will highlight some favorite species and the spots where they occur.

Most sessions will be 60 to 90 minutes in length, with breaks in between. Some will be live streamed (and also recorded for future viewing) and others will be pre-recorded and posted online.

Participants will be asked to make donations to keep the festival going, both this year and beyond. (In 2020, the festival had to cancel a mere 6 weeks before the event, after money had been spent that couldn't be recouped.)

The complete program schedule will be posted soon at www.godwitdays.org, as will instructions on how to access the sessions. Among the sessions being planned (as of 3/8/21):

- A Bird in the Hand: Banding at the Humboldt Bay Bird Observatory featuring HBBO staff and/ or volunteers
- Curiosities & Oddities in the Humboldt State Wildlife Museum with Curator Tamar Danufsky
- Humboldt Birding: Past, Present & Future, A Birds & Beers Social Zoom with F. Fogarty, R. Fowler, G. Gray, T. Leskiw, G. & L. Lester, S. McAllister, J. Power & K. Slauson.
- Surveying Shorebirds of Humboldt Bay: Plenary Lecture by HSU wildlife professor Dr. Mark Colwell
- "The Big Hour": Facebook Live at the Arcata Marsh with Rob Fowler of Fowlerope Birding Tours and wildlife artist Gary Bloomfield
- Bird Songs & Calls: An Identification Workshop with birder/biologist David Juliano
- Snowy Plovers with USFWS biologist Olyvia Childress
- Shorebird Fly-off: Facebook Live at the Arcata Marsh with Dr. Mark Colwell & Rob Fowler
- The Language of Birds: Keynote Lecture by Nathan Pieplow, blogger on recording, identifying, and interpreting bird sounds (www.earbirding.com)
- Seeking Amphibians in Del Norte County with California State Parks biologist Tony Kurz
- Tips & Techniques for Sketching Birds by Gary Bloomfield

- Spotted Owl Trip with Green Diamond Resource Company staff, Rob Fowler and Gary Bloomfield
- A Tribute to Dr. Stanley Harris: Memories of HSU Ornithology Prof "Doc" Harris

Also to be posted on line during the festival: announcement of the winner of Humboldt County's

Bird of the Year for 2020, as well as winners in the 18th annual student bird art contest, cosponsored by Friends of the Arcata Marsh and Redwood Region Audubon Society (RRAS), and in the 16th annual student nature writing contest, sponsored by RRAS.

"We wanted to keep Godwit Days in the public eye after we had to cancel the April 2020 event," says Board Chair Alex Stillman. "But we needed to do it safely and without spending much money; thus, we came up with a virtual festival. I hope people will enjoy the content and donate accordingly, so that we can return

in 2022 with a full-blown, in-person festival."

Follow us on Facebook or visit **www.godwitdays. org** for festival updates (including links to sessions) or to make a tax-deductible contribution at any time.





New report captures 50 years of institutional knowledge about the NPS/USGS Redwood Creek watershed studies.

FIND THE REPORT HERE:

irma.nps.gov/DataStore/Reference/Profile/2284606

REPORT TITLE:

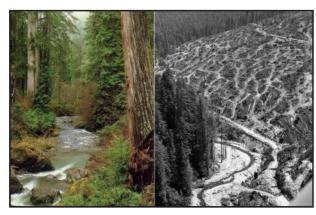
Redwood Creek Watershed Studies: Summary of Geomorphic Research at Redwood National Park

REPORT DESCRIPTION:

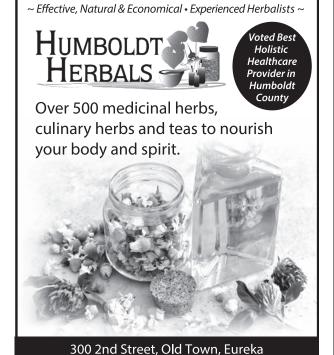
The story of Redwood National Park (RNP) is one of landscape disturbance, recovery and resilience, uniquely documented by 50 years of observations and measurements. Old-growth coastal redwood forests (Sequoia sempervirens), encompassing the tallest trees in the world, once stretched along 450 miles of California coastline. By 2016, following widespread timber harvest, only 5% of the original primeval redwood forests remained, much of it protected within Redwood National Park. This report summarizes decades of studies of physical processes, both natural and human-influenced, affecting the terrestrial and aquatic ecosystems in Redwood National Park. The long-term monitoring has provided a rare opportunity to assess how a forested watershed responds to and recovers from large-scale perturbations.

DID YOU KNOW:

- Redwood Creek was buried with over 20 ft of sand and gravel about 2 miles above the Tall Trees Grove a few decades ago. Luckily, the channel is in recovery, but you can still see the markers of the formerly buried channel.
- Water temperature in Redwood Creek is still hot enough to periodically cause juvenile fish kills in the summer.
- Redwood National Park collaborated with local landowners to decrease erosion in Redwood Creek.



"Redwood Creek Watershed Studies" National Park Service Report front cover graphics.



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LETTERS TO **ECONEWS**

SMALL 'd' DEMOCRACY - WATER AND POWER

You don't want to swap water with the folks in Flint, MI, and you don't want to swap electricity reliability with anyone in Texas.

Water and electricity are essential. In Humboldt, water, and to some extent, electricity, are managed by public districts. That means if you don't like the way your water tastes, or its price, or its development, you can have a say in how your essentials are managed.

Our public districts have become so very easy for us, as individuals, to watch and participate in in the last year. Zoom means wherever you are, you can drop in on your local meetings. Unlike the incessant talk-a-thons of city councils and the Board of Supervisors, these meetings are focused and relatively short. That is, it doesn't require much of your time, and you get an outsized input if you choose to participate.

Personally, I have two boards, the Humboldt Community Services District (water/sewer) and Redwood Coast Energy Authority (the commodity, not the delivery, of electricity).

The community district is an organization with lots of potential for using alternative energy, restructuring rates to reward conservation, addressing climate change, and influencing development. Until recently, it's been stuck in the old ways, but new board members and staff are breathing new life into it. What it lacks is public input. It's been operating without public "sunshine" for ages. Your elected water district has its own stories, and some are fascinating. All are essential to everyday life.

The broader district is the energy authority. It doesn't lack for public interest, but your voice can be heard there too. It's working on big ideas, like offshore wind and microgrids. It has to work with PG&E, though, for transmission and distribution of that energy. If you want to get involved on that level, you can participate at the California Public Utilities Commission.

Another district you can watch is the Humboldt Bay Municipal Water District. Many water providers are run through your local city services and can be accessed at the department or city council level.

It's so easy to be an "influencer." Not for Instagram, but for yourself and your community.

- J.A. Savage, Eureka

NEC RECOLLECTIONS

I spent a lot of time at the NEC as a volunteer from 1973 to about 1983. I came to Humboldt State College in the fall of 1973, right out of high school, having grown up in Marin County. The very first week there was a new-student orientation panel about environmental issues, including Rudy Becking and Wes Chesbro. I was immediately attracted to the NEC as a nexus for all things environmental. I volunteered right away, and swear I was sitting on the floor at the NEC cutting out articles about the recently defeated Butler Valley Dam, before classes had even started.

I was already getting involved with river conservation issues during my senior year in high school, including the fight to prevent New Melones Dam from being built on the Stanislaus River. The NEC was a helpful base for coordinating a Humboldt County Save-the-Stanislaus petition drive and subsequent ballot measure campaign. The dam fight wasn't successful, but out of it grew the statewide Friends of River organization. Linda Miller and I started up a North Coast Chapter of FOR, and that was my main focus for several years. We became a member organization of the NEC.

I do have a key memory from the 10th Street location, circa 1975. I had nervously drafted my first article for the Econews, about some river issue. Sid Dominitz went over the article with me, very kindly and editorially, while we sat in the sun on a bench outside in front of Arcata Transit Authority. He suggested a ton of changes, but they were all good ones. I learned a lot about brevity and clarity in that single session. I always appreciated the red pen he wielded over the Econews (not everyone did!) "300 words or less!"

-Nancy Reichard



THE ECONEWS REPORT

A selection of some recent **EcoNews Reports:**

Food Waste Fuels Climate Change

March 6, 2021 - Before you throw away that half-eaten sandwich, you'll want to listen to this week's EcoNews Report. Every year, Humboldt County sends thousands of pounds of organic waste to our out-of-state landfill. In the oxygenless (anaerobic) landfill environment, organic matter



breaks down into greenhouse gases, including carbon dioxide and methane. Luckily, there's an easy solution. Maggie Gainer from Zero Waste Humboldt joins Gang Green to talk about how Humboldt can (and must) do a better job diverting organic waste from the waste stream.

How will Humboldt Reach 100% Clean, Renewable **Energy?**

February 27, 2021 – In 2019, the Redwood Coast Energy Authority adopted a goal to deliver 100% clean, renewable electricity to all customers by 2025 and for 100% of that power be generated within Humboldt County by 2030. Richard Engel, Director of Power Resources at RCEA, joins Gang Green to talk about their plans to rapidly increase renewables in our power portfolio.

Busting Myths about the Klamath Dam Removal

February 13, 2021 – Mike Belchik, senior fisheries biologist with the Yurok Tribe, joins Gang Green to give an update on the Klamath dam removal (spoiler: it's on track to be completed by 2024!) and helps resolve a number of myths concerning the Klamath dams that you might see shared on social media.

What's Next for Rep. Huffman's Wilderness Bill?

February 6, 2021 - Ryan Henson of the California Wilderness Coalition joins Gang Green to talk about the details of the Congressman Huffman's Wilderness bill, some of his favorite new wilderness areas, and breaks down the prospects of the bill's passage in the 177th Congress.

What Can the August Complex Tell Us About the Fires of the Future?

January 23, 2021 - The 2020 August Complex was the largest fire in recent history, burning over one million acres. If large fires are the new future, what can we learn from the August Complex?



EXPANDING REDWOOD NATIONAL PARK IN 1978: A CRITICAL SAVE

Photos & Article by Dave Van de Mark, founding NEC board member

Late in 1968, Redwood National Park became a reality! It was clearly a last chance act to save some large blocks of virgin forest that were being rapidly lost to big caterpillar tractor-based logging right up to the very moment of its enactment. While certainly better than nothing, the new park protected only about half of the old growth remaining in Redwood Creek and lower Prairie Creek that would have been protected by the largest Sierra Club proposal.

The largest intact, unprotected area belonged to Arcata Redwood Company (ARCO), which owned most of the east side of Redwood Creek for about a dozen river miles from Highway 101, most of which was pristine. Georgia-Pacific (G-P) owned most of the west side for about the same distance and had logged scattered areas since the late 50's. Simpson Timber Company owned much of both sides further upstream. Between those three companies, they remained in control of over 20,000 acres of old growth forest in Redwood Creek.



View south at upper end of the "worm" boundary of park in the Emerald Mile. The east side (left in photo) was still fairly intact. The west side was being heavily logged by G-P. Five "patch" cuts are seen below closest road, with typical tractor based clear-cutting above. When park was created in 1968, all that you see in this view was mostly intact. June 1976.

Tall Trees bend on Redwood Creek's east side with the worm protecting only a quarter mile of original forest. Much of the west side (bottom and lower left) already was partially logged years before. Below the nearest road are four "patch" cuts in the 800 foot wide "buffer" with a massive area of tractor based clear-cutting ongoing above the road. June 1976

5

The boundary of the original park was a total ecological and scenic disaster from the get go. The only significant protection was given to a few miles of lower Redwood Creek near Orick, encompassing several small drainages on ARCO's east slope but, tragically, only the lower portions of two exquisite watersheds on G-P's west side: Elam and McArthur creeks. Left out completely were some of the finest upper slope and ridge top forests located anywhere.

The remainder of protection afforded Redwood Creek was in the form of the infamous "Worm" – a mere quarter mile wide strip on either side of the river, snaking up to the Tallest Trees, located eight miles up from 101 and continuing six more miles to include the Emerald Mile. Such a narrow strip of land offered no hope of protecting the original park from sights and sounds of timber activities and certainly not from direct impacts like erosion and land sliding. Furthermore, too much of the entire watershed remained out of park control.

All of the east side of Redwood Creek upslope from the worm was intact when the park was created and a significant amount of the west side was too. Other fine old growth parcels found in lower Prairie Creek and upper Mill Creek adjacent to Jedediah Smith Redwoods State Park also sadly remained unsaved and vulnerable to what would follow.

THE EVOLVING DISASTER

Those of us local activists who remained involved had the unenviable task of now dealing with two "enemies" – the timber companies, out to take down what remained as quickly as they could, and the National Park Service itself. During the first few years that Lucille Vinyard, myself and others tried to interact with the park, we were met with almost outright hostility. "Go away" was the impression we received.

About the only significant "safeguard" the park engineered for its own land was to negotiate an 800 foot buffer adjoining the "worm". This buffer was not a permanent addition to the park — merely a means to reduce the amount of timber harvesting to the park's boundary at any given time. Eventually, forest between the patch cuts would also be cut.

The only other benefit the buffer provided to the park was that it called for a better form of logging, using cables to haul logs up to a landing rather than tractors. Above that buffer, ARCO was opening up a contiguous expanse of thousands of acres of tractor-logged land — destroying almost all living vegetation, gouging out wide swaths of soil, and often slicing far into underlying unstable bedrock. Original water flow throughout was being severely disrupted and rerouted, resulting in landslides and massive amounts of road and tractor trail erosion.

Continued on next page



Log truck winds its way along C-Line road on the upper east slope of watershed where approx. 5,000 acres were being logged. Very visible above and below road are extensive surface erosion and mass land slippages. June, 1973

EXPANDING REDWOOD NATIONAL PARK IN 1978

Continued from prior page

There were other land use "agreements" being painstakingly negotiated privately between the park and adjacent landowners, but these were not publically well known and became time-wasting exercises by the timber industry.

Meanwhile, the public wasn't hearing much from Redwood National Park until the cumulative sum of damage was too much to ignore. The outside world was already exceedingly alarmed, often because of pictures that I and others were distributing to the media. The Sierra Club and Natural Resources Defense Council sued over what was happening. Geologists Richard Janda and Robert Curry produced excellent reports demonstrating that upslope and upstream erosion was threatening the very existence of the tallest trees and other park features. Each year more sediment was reaching the river and raising the channel to levels that were threatening the integrity of the groves. Fine silt from occasional high water flows is excellent for the redwoods, but not large rocks and debris.

Clear-cutting was ruining the once intact and beautiful vistas that visitors enjoyed while visiting Redwood Creek.

Another significant development occurring between 1968 and 1978 was the formation of a new group of activists and researchers who were known as the Emerald Creek Committee, led by John Amodio. Of course, I and

others worked with them, but they were clearly a highly self-motivated bunch – fresh blood, so to speak – who worked hard to prevent some key timber sales from being approved in Emerald Creek, their label for the sizeable east slope tributary named for Harry Weir, the logging boss of ARCO.

Emerald Creek enters Redwood Creek just downstream from the Emerald Mile and was being hit hard by clear-cutting on its upper slopes. The new sales would have brutally impacted the inner gorge of this, still beautiful, canyon. At least two big sales were halted as a result of their efforts to get the State of California more involved. Bravo!

Finally, finally – even Redwood National Park had seen and heard enough and their many scientists began to speak out openly regarding the impacts they were observing and measuring. Then, to everyone's total surprise in late 1976, the National Park Service proposed expanding the park – a historic break from all previous management goals they had been pursuing.

NEW HOPES: PARK EXPANSION, RESTORATION AND FATHER TIME

By the end of 1976, public outcry for a stop to the cutting, plus clear revelations that the original park boundaries were failing to protect park resources and also could not remotely provide visitors a truly excellent



Richard Janda, 2nd from bottom, is led by me down a debris strewn section of stream near the Tall Trees. He visited many places just outside the park, plus studied the Redwood Creek channel. He produced a solid report highlighting ongoing cumulative threats to the park environment. 1976



One of the finest of pristine views of forested slopes along Redwood Creek was from the mouth of Elam Creek. It was ruined when Arcata Redwood cut out a patch of forest along Bald Hills Road. The Secretary of the Interior had the discretion to adjust boundaries a bit to stop this but he chose not to.

experience, eventually led to its significant expansion (mostly in Redwood Creek) in 1978. By adding 48,000 acres, centered around the existing worm, the whole of lower Redwood Creek from ridgeline to ridgeline was protected. Upstream from the park, a Park Protection Zone of 30,000 acres was created to help manage future timber practices. An additional 9,000 acres of old-growth were now protected.

Over a short period of time, the administration of the park really matured and many fine personnel came on board that greatly valued their responsibilities. Because of all the previous damage to upper watershed areas, channel aggradation continued in Redwood Creek into the early 80's, putting the Tall Trees briefly in great danger of being breached by gravels during high water levels.

But counter measures were also underway in the form of some extraordinary rehabilitation work — original slope contours were being restored (especially in the prairies), roads were being removed, and erosion control measures were being implemented. It was historically remarkable work that earned praise the world over. My only criticism would be that I wish more effort had been given to creating additional trails out of restored old roadbeds as was done on part of the Dolason Prairie Trail and with horse trails on the west side of Redwood Creek.

Even today, there is ongoing work to restore some logged over lands in Prairie Creek and Mill Creek to old-growth like conditions (which, of course, will take centuries). Some of the logged areas are so densely packed with small trees, that it will take longer to evolve to an old growth "look". However, by carefully thinning out some of these small tree "weeds" and leaving behind a better spacing, perhaps the evolution to old-growth conditions can be hastened. The experiment is real and ongoing and is being called "Redwoods Rising".

Best of the Best! Our Lanphere and Ma-le'l Dunes

Dan Sealy, NEC Legislative Analyst

In the mid 1980's Peter Alpert (now Professor Emeritus, Department of Biology, University of Massachusetts - Amherst) was conducting his postdoctoral botany work at Año Nuevo and became interested in coastal dunes. That interest, as he says, "led to a summer contract with The Nature Conservancy, during which I documented remnants of native dune vegetation from San Francisco to the Columbia River. The most extensive remnant in northern California was certainly that at the then Lanphere Dunes Preserve." He was joined in this effort by an employee of The Nature Conservancy, Jimmy Kagan (currently at the Institute for Natural Resources at Oregon State University) and included explorations of coastal dunes from the Canadian border to San Francisco Bay. Their task became part of a nationwide, systematic effort to identify the best of the best geologic and biotic resources for potential consideration by the National Natural Landmarks (NNL) Program. Established by the Secretary of the Interior in 1962 and administered by the National Park Service, this program recognizes public and privately-owned sites that exemplify the nation's diverse natural heritage.

They found that most of the dunes had been either developed or native vegetation had been overtaken by invasive non-native plants such European beachgrass. They found the Lanphere Dunes near the north end of the entrance to Humboldt Bay, a remarkably intact collection of native plant communities atop an emblematic dune formation. It was no accident the dunes were intact since Hortense and William Lanphere, pioneers of the Humboldt State University (HSU) wildlife and botany programs, had a home at



A restored salt marsh on the east side of the Lanphere Dunes.

Photo Credit: Andrea Pickart

the edge of the forested dunes. The area had been sustained by the Wiyot people who had lived here and the Lanpheres had worked diligently to keep off-road vehicles away from the dunes and to study them for better understanding. These were, in fact, the best of the best and if not protected, they would disappear. In 1976 Hortense Lanphere donated most of her land to The Nature Conservancy, inspiring other landowners to sell or donate their adjacent properties. Though the dunes were not included in the first rounds of NNLs, the land eventually came under the administration of both the US Fish & Wildlife Service (USFWS) and the Bureau of Land Management (BLM.)

Kagan and Alpert enlisted the help of geologist and HSU botany graduate, Andrea Pickart, who worked for The Nature Conservancy and later became a USFWS employee. In 2019 Kagan and Alpert updated their report to include new geologic and botanic studies by Pickart along with updated lists of plants and animals compiled by local conservationists like Carol and CJ Ralph who bought the Lanphere home from Hortense. Carol is the president of the local chapter of the California Native Plant Society and CJ is a research Wildlife Ecologist Emeritus at the USDA Forest Service's Redwood Sciences Laboratory.

The identification and protection of natural areas is the legacy of dedication and perseverance often coupled with science. In 2020, the National Park System Advisory Board recommended the Lanphere and Male'l Dunes as one of our newest NNLs. Although there are no funds or new regulations that come with this designation, as part of the NNL program, the site gains in public pride and support and any federal action on or near the site, such as federal highway construction, must address impacts to the integrity of the NNL resources. Upon landowner request, NNL program coordinators can arrange for technical assistance to make recommendations or to help solve problems.

What makes Lanphere and Ma-le'l Dunes the Best of the Best? Geology is at the foundation and the dune complex "contains exceptional examples of eolian (wind-driven) resources, specifically those associated with sand dunes such as beaches, foredunes, transverse dunes and stabilized dune forests," explains the NNL program on its website. The area provides the "perfect example of this concept, containing one of the most diverse and highest quality remnants of coastal dunes in the North Pacific Border Biophysiographic Region, specifically the "Klamath–Siskiyou Coastal Sand Dune" complex.

Dune ecosystems are sometimes overshadowed by other local ecosystems such as redwood forests or mountains but looking closely at the dunes, observers first might notice the important shore pine, red alder forests and dense willow thickets. Closer observation



Map showing the Lanphere / Ma-le'l Dunes location and units north of Arcata Bay. Source: Alpert and Kagan Report

reveals the smaller plant communities that form mats near the more recent sand movement. There are many varieties of flowers and animals, especially insects, that often go unnoticed as well.

Along with hundreds of types of lichen and fungi, the new Lanphere landmark supports hundreds of species of vascular plants including a number of at-risk plant species such as the federally endangered Menzies' wallflower (Erysimum menziesii) and beach layia (Layia carnosa), both found only in California and only on coastal dunes. Native fauna includes forty species of mammals, twelve species of amphibians and reptiles as well as a large and diverse invertebrate fauna, including over forty species of native, solitary bees which are important in plant diversity and ecosystem functioning. "The checklist of bird species on the project area and immediately adjacent properties is well north of 300 species, amazing for such a small area. The density of birds is especially rich in the forest/riparian/pasture interface and edges and exceeds virtually any other area in northwestern California," says ornithologist, CJ Ralph. From birds and bees to seals and salamanders, this is a world full of animal life.

Continued on page 18

KIN TO THE EARTH ANDREA PICKART

Annie Eicher and Linda Miller

We are pleased to offer this tribute to our dear friend and colleague, Andrea Pickart, a true Kin to the Earth. For nearly forty years, we've enjoyed Andrea's friendship and we've had the privilege of assisting her with research on north coast dunes and wetlands. In the pursuit of science, we've faced sand-blasting winds, waded into icy winter waves, and carried heavy survey equipment up and down dunes. In reward, we've been able to listen to the chorus of treefrogs in the dune hollows after a spring rain, watch the dance of Sanderlings in flight as they swoop and turn in unison, and witness the glory of dunemat ablaze with blooming Menzies' wallflowers. (Andrea still gets excited every year when the first wallflowers bloom!) A fun weekend outing with

Andrea is a hike across dunes in a rainstorm to watch king tide storm waves crash against the foredunes. Life doesn't get much better than that!

Andrea is an ecologist at the Humboldt Bay National Wildlife Refuge (Refuge), which includes the Lanphere and Ma-le'l Dunes Units on the North Spit of Humboldt Bay. She began at Lanphere in 1984, working for The Nature Conservancy until stewardship of the dunes was transferred to the Refuge in 1997. Andrea's love and appreciation of these unique dunes as an integral part of the Humboldt Bay ecosystem have guided her over the past four decades. She has become a leader in the development and implementation of innovative coastal dune restoration techniques. Her work serves as an inspiration and model for other restorationists locally and at other west coast locations. Andrea has shared her findings in numerous scientific publications and at professional conferences, community meetings, and field tours. Recently retired Refuge Manager Eric Nelson says, "No mention of dune ecology and/or restoration on the

North Coast, or indeed California, is complete without including Andrea's name. Andrea has put monumental study and effort into dune conservation for decades, and her passion for this amazingly unique and rare coastal ecosystem has benefited everything that is part of it."

An appreciation of nature that goes beyond science, evident in Andrea's stunning photography and artwork, was sparked at an early age. As a child in rural Maryland, she explored wild places with her two sisters and four brothers, and she identified wildflowers with her mother. In high school, Andrea backpacked and explored caves in Maryland's Blue Ridge Mountains and Shenandoah Valley. She completed her B.A. in Geology in 1979 at the University of Rhode Island, where her father was Chairman of the Physics Department.

Andrea has lived in Arcata since 1982, and she raised two children here. In 1988, she completed her M.A. in Biology at Humboldt State University (HSU), with thesis research on the biology of selected local coastal dune plant species. Andrea's major professor, the late Dr. John Sawyer, became a lifelong friend and colleague. Together they wrote a book on the ecology and restoration of northern California coastal dunes, and Andrea illustrated a field guide to the trees and shrubs of California that John wrote with HSU forestry professor Dr. John Stuart.

Andrea has been instrumental in local dune restoration. Her work at the Refuge's Lanphere and Ma-le'l Dunes Units demonstrated how natural dune processes such as sand movement, essential for proper ecosystem function, could be restored following the



Painting of Lanphere Dunes by Andrea Pickart. (Photo courtesy of Eric Nelson)

removal of invasive plants. Invasive European beachgrass, yellow bush lupine, and iceplant have effectively been removed from the Refuge's dunes — an impressive feat that many people thought was impossible at the onset. Today the restored dunes support a diverse and colorful community of native dune plants, including thriving populations of two federally endangered plant species: Menzies' wallflower and beach layia.

A two-decade effort by multiple public agencies and community partners, of which Andrea was an integral part, led to formation of the Ma-le'l Dunes Cooperative Management Area. The northern portion of the management area is the Refuge's Ma-le'l Dunes Unit, and the southern portion is owned by the Bureau of Land Management. This wonderful place provides



Kin to the Earth, Andrea Pickart.

public access to coastal dunes, forests, and tidal sloughs, with ample opportunities for hiking, botanizing, or birdwatching.

In January 2021, Lanphere and Ma-le'l Dunes were designated a National Natural Landmark (see facing

page), an honor bestowed by the National Park Service in recognition of the dunes' "outstanding biological and geological resources." Andrea has long known how special these dunes are and she is delighted to see their national significance recognized.

Coastal dunes are not the only habitat to benefit from Andrea's work. Her research and development of effective control methods to remove the invasive grass Spartina from salt marshes has been adopted by an on-going region-wide Spartina eradication program. Marshes treated thus far show an astounding natural recovery by native salt marsh plants, including rare plants.

For the last five years, Andrea has been working on the Humboldt Coastal Resiliency Project, an effort to better understand sand dynamics as it relates to the dunes and to predict the effects of sea level rise. The study covers the coastline from Trinidad to Centerville, with multiple local agency partners and collaborators.

Andrea loves to invoke the phrase "it takes a village...." She collaborates with researchers from around the world and community members alike, and she is quick to give thanks and praise. She has hosted countless potlucks to welcome out-of-town researchers and to foster collaboration. Andrea is well known and loved by budding scientists for her mentorship. Laurel Goldsmith, botanist with the Arcata office of the U.S. Fish and Wildlife Service, says, "Andrea takes time to teach people and connect with them on a personal level. It made all the difference in the world for me."

We know that we're not alone in expressing deep gratitude to Andrea for the gifts she has given us personally and the gifts she has given to the earth through restoration and protection of fragile coastal dunes and wetlands, a legacy that will endure for years to come.

NO MORE ACKNOWLEDGEMENTS, IT'S TIME WE ACT ON LEARNING AND TEACHING INDIGENOUS KNOWLEDGE

Puanani Faleofa, Kānaka Maoli (Native Hawaiian) Water and Land Protector

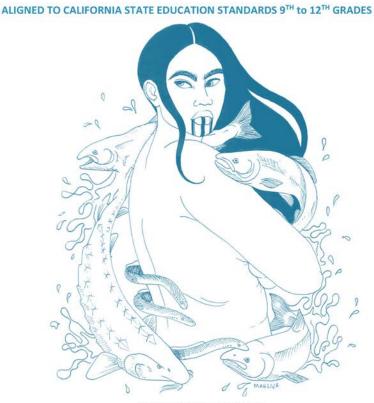
We need more water and land protectors. California has both a water and land crisis. Save California Salmon, HSU Native American Studies, Tribes and School Districts have just released a high school curriculum based on the 2020 Summer Speaker Series, Advocacy & Water Protection in Native California, which includes indigenous knowledge from tribal leaders and members in Northern California.

The CORE course from Module 1 of this curriculum titled "Understanding Water Policy, Law and Tribal Sovereignty" teaches us about the interconnectedness of our environment and ourselves. California experienced devastating fires and apocalyptic skies last year that initiated discussions of Native cultural burning as fire prevention. Indigenous knowledge teaches us that in order to have balanced ecosystems we need rivers to flow freely throughout land bodies to water the trees and soil. This curriculum tells us how dams block that balance. "What I have always learned is that our rivers and our waters are like the veins of a whole system that have to work together, they feed each other. We can't just dam up an artery and expect it not to cause some kind of big effect in another part of the system. All these things are interconnected" said Dr. Cutcha Risling Baldy, Department Chair for HSU's Native American Studies, who was a presenter in the CORE course.

The pandemic allowed us to reflect on the need for flexibility and more place-based learning within our schools.

We can't afford to continue to be confined to just one school of thought. The curriculum was developed to build a bridge for everyone, but especially our school systems, to learn from indigenous knowledge about how to care for our environment and each other. The bridge is built, it's time to cross over it. "This is about protecting the water and defending the land. Who does that best? Who has those relationships? Indigenous peoples. Center Indigenous peoples' perspectives, histories and goals, and we will protect the land and protect the waters" says

ADVOCACY & WATER PROTECTION
IN NATIVE CALIFORNIA CURRICULUM



Artist: Mahlija Florendo

Developed from the 2020 Summer Speaker Series & Certification Program in collaboration with Save California Salmon, Humboldt State University Department of Native American Studies, Klamath/Trinity Unified School District Indian Education Program, Pathmakers Progam at Humboldt County Office of Education/Blue Lake Rancheria, Yurok Tribe's Visitor Center

www.californiasalmon.org

"Advocacy & Water Protection in Native California Curriculum" front cover. Source: Save California Salmon.

Tia Oros Peters, CEO of Seventh Generation Fund for Indigenous Peoples.

Life's most essential relationship is the one we have with nature. In this curriculum, students research and learn about watersheds, and traditional foods, in their area. This is a living curriculum and meant to adapt to changes in environment, policy, and also areas outside of Northern California. "Native peoples have very important relationships with our food sources. This idea of nomadic hunter gatherer is very simplistic. In reality, Native peoples have complex knowledge systems about how to

work with food systems," says Kaitlin Reed, Assistant Professor of Native American Studies at Humboldt State University, during the webinar titled "The River Feeds Us, Food Sovereignty and Community Resilience."

What do you know about food sovereignty? Forget toilet paper, it's essential to learn about where your water and food sources will come from during a pandemic.

Salmon is a main food source for Native tribes in Northern California, and salmon returns are at an all time low. In the activity "A Salmon's Perspective" students imagine they are a salmon traveling upriver and downriver. We can learn many lessons from the life cycle of salmon. Adult salmon swim upriver just once to spawn and then die leaving their bodies to nourish the soils and streambeds. Salmon offspring are left to find their own way down river, to the estuary, where the river meets the ocean. It's in this special place that salmon can change from freshwater fish to saltwater fish and then back again when they journey back upriver as adults to spawn. Our waters, lands and salmon are not just a "resource," they are a gift, an ancestor, that must be protected. "We have a story about the salmon and about how we are related. The salmon have always been there for us. They gave us their voice. The salmon population is diminishing and we recognize that whatever happens to the salmon will happen to us" says Chief Caleen Sisk of the Winnemem Wintu Tribe.

I am a water and land protector. Indigenous knowledge brings "us" together. In Hawaii, we say Aloha 'Āina which literally translates to

love of the land, but it encompasses so much more than this literal translation. Aloha 'Āina is a deep love and gratitude for all life. It's knowing that we are not separate from nature. It's celebrating Spring as a time for growth, not as a time to set our clocks back an hour to "save the day", but to learn knowledge that will save generations. The future is now.

The curriculum is offered at www.californiasalmon. org/curriculum-advocacy-water-protectio or through contacting regina@californiasalmon.org.

Historic Public Lands Bill Passes the House With Bipartisan Support

Amanda Barragar and Ryan Henson

On February 26, the House of Representatives, with support from both Republicans and Democrats, passed the Protecting America's Wilderness and Public Lands

Act (H.R. 803) with a 227-200 vote. This Act bundles many public lands bills, including Rep. Huffman's Northwest California Wilderness, Recreation, and Working Forests Act, The Central Coast Heritage Protection Act sponsored in the House by Representative Salud Carbajal, The San Gabriel Mountains Foothills and Rivers Protection Act sponsored in the House by Representative Judy Chu and The Rim of the Valley Corridor Preservation Act sponsored in the House by Representative Adam Schiff. The package in its entirety would protect more than 1 million acres of public land and 1,000 miles of rivers in California and other

Western states. The proposal promotes restoration of impacted watersheds, improves fire management, expands recreation opportunities and enhances the local economy.

Here in California, H.R. 803 will:

- Protect 630,728 acres (more than 985 square-miles) of public land as wilderness;
- Protect over 406,00 acres through other designations;
- Protect 684.5 miles of streams as Wild and Scenic Rivers:
- Improve the management of lands to enhance equitable benefits for all Americans and to strengthen ecological resilience by:
 - » Improve the management of lands to enhance equitable benefits for all Americans and to strengthen ecological resilience by:
 - » Promoting restoration and fire-resilience on over 729,000 acres of mostly previously logged federal land;
 - » Encouraging the cleanup of areas on federal land impacted by illegal marijuana growing;
 - » Authorizing the construction of new public lands visitors' centers;
 - » Requiring a study of the feasibility of establishing

hundreds of miles of new non-motorized trails;

- » Improving equitable access to public lands; and
- » Ensuring that Native Americans can continue to use lands for cultural purposes.

a host of reasons.

Not all of the amendments were objectionable. For example, the PAW Act was amended to include the Outdoors For All Act. Sponsored by Representative Nanette Barragán, this bill establishes an outdoor

recreation legacy partnership program under which the Department of Interior may award grants to eligible states, counties, cities, tribes, and other entities for projects to acquire land and water for parks and other outdoor recreation purposes, and develop new or renovate existing outdoor recreation facilities. Priority will be given to projects that engage and empower underserved communities and youth, provide opportunities for youth employment or job training, establish or expand public-private partnerships, and take advantage of coordination among various levels of government. The Outdoors For All Act is seen

as an important step forward in addressing issues of justice, equity, diversity, and inclusion when it comes to public land conservation.

This legislation is passing the House much earlier in the Congressional session than the previous two times, giving the Senate plenty of time in this calendar year to pass the bill. Moving this legislation to the Senate is of high priority to Rep. Schiff, a sponsor of another bill in the package. Quoted during a press conference he stated, "there is great receptivity on the democratic side, and (this) has had bipartisan support." The Biden Administration strongly supports these bills, which will, in part, help the administration's climate goal of protecting 30% of America's lands and oceans by 2030.



This is the third time that Rep. Huffman's bill has passed through the House, each time with bipartisan support, but the first time with Democrats in control of the Senate. This difference increases the chance the measure will become law. In a press conference Huffman said, "We're going to be tenacious to look for every opportunity to attach this to any package to come to a vote. If this bill gets to the Senate, it will pass with bipartisan support."

H.R. 803 was passed relatively quickly by the House because the bills included in it have all had hearings and have been thoroughly discussed and debated. As the bill approached a final vote, some lawmakers attempted to add amendments opposed by conservationists, including one that would prohibit an area from being designated wilderness if it had recently burned. All of the truly objectionable amendments were voted down.

Another amendment meant to divide the Democrats on renewable energy was offered by Utah Representative John Curtis. The Curtis amendment requires the government to study the lands protected by the PAW Act to determine if they contain any minerals important for renewable energy or battery technology. The amendment passed because several Democrats voted for it, despite the amendment being unnecessary for



NORTH COAST **CHAPTER**



California Native PLANT SOCIETY

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Evening Program

Wednesday, April 14, 7:00 p.m. "Putting the Forest Back in Forestry." Rejecting the modern practice of managing forests solely for timber and fiber, at van Eck Forest in McKinleyville, the Pacific Forest Trust has pioneered ways to pay for vital forest outputs like water, wildlife, native plants, and climate, while also reducing regulatory burdens. Laurie Wayburn, the dynamic executive director of the Trust, will show what this new kind of managed forest looks like, compared to "standard" industrial timber harvest, and explain the central role of managed forests in combating climate change. Register for this Zoom event on our website.



Van Eck Forest. Credit: Pacific Forest Trust

Snow Queen in Peak Bloom

A field trip February 27 to Gray's Falls in Six Rivers National Forest east of Willow Creek found Snow Queen (Synthyris cordata) was at its peak bloom.



Snow Queen (Synthyris cordata) by Kale McNeil

Field Trip

Sunday, April 18, Horse Mountain Day Trip. We will flower-spot along Titlow Hill Rd. (off Highway 299) on our way up to 4,000+ ft. elevation, where we will check what's blooming at as many sites as we can pack into the day, including Lookout Rock, Indian Butte Rd, and Cold Spring, all in Six Rivers National Forest. Small groups, face coverings, and social distancing observed. Register with Carol at 707-822-2015 or theralphs@ humboldt1.com to learn details.

Spring Native Plant Sale Sat. & Sun, May 1-2

Freshwater Farms Reserve

5851 Myrtle Ave., Eureka

By appointment only, in-person shopping. Physical distancing observed and masks required. Visit northcoastcnps.org or call 707-267-0397 to schedule an appointment. Questions? Email: northcoastcnps@gmail.com

- • 1,000+ plants of 100+ species grown by our chapter
- · Species list at www.northcoastcnps.org >Gardening>Native Plant Sales
- · Cash, check, or credit card
- Please bring a box to carry home your plants.



A selection of our plants are available every day, 12 - 6 PM at the Kneeland Glen Farmstand 5851 Myrtle Ave., Eureka, CA

Spring Wildflower Show and Art Share

The annual North Coast celebration of wild California plants has a new virtual form!

Spring Wildflower Show

April 24 - May 2

Special Feature: Serpentine Flowers & Ecology

- Virtual wildflower collections on iNaturalist
- iNaturalist wildflowerblitz: have your wildflower identified.
- serpentine topics.
- Invasive plant information.

Find out more at

northcoastcnps.org > Wildflower Show



Wildflower Art Share

April 2 - May 2

- Little Free Wildflower Art Galleries. Public invited to share 3" x 3" wildflower art in neighborhood boxes
- Art Demos and Challenges via Zoom.
- Public invited to share their Wildflower Art challenges on Facebook and Instagram



California Pitcher Plant Leaves, Annie Reid northcoastcnps.org > Wildflower Show > Art Share

Redwood Region Audubon Society

www.rras.org

• Humboldt Bay Wins Special Site Award! • Women Birders on Assault & Harassment • Birds in the Wiyot Language The History of a Red Alder

(Alnus rubra)

By Pete & Judy Haggard

There are two Red Alders in our front yard that had a dbh (diameter at breast height) of 1" when we moved to Fieldbrook in 1977. By 2019, the alders, had matured to a dbh of approximately 14". The trees are covered with many species of lichen, and the fruiting bodies of fungi sprout from the trunks during the winter. These trees and the organisms that live on them continue to provide home and food for both adult and immature wildlife. Consequently, the trees remain a generous and extremely important food supplier for overwintering insectivorous birds. Chestnut-backed Chickadees in particular seem to search the trunks and branches for insects and spiders during much of the winter. Also, in winter and spring, sapsuckers ring the trunks with holes searching for sap, which provides them and other smaller birds with nutrition when times are tough. We have consistently seen all the local native species of woodpeckers on these two trees and have hoped that someday at least one of the alders would provide a home for cavity-nesting birds or mammals. Well, this year we have finally been rewarded – a pair of Downy Woodpeckers are "digging" out a nest hole in one of the alders!

Pete and Judy Haggard are co-authors of the field guide, "Insects of the Pacific Northwest," and Pete is currently Garden Chair for the California Native Plant Society-North Coast Chapter. •



Above: Adult Downy Woodpecker inside the nest. It is hard to see but s/he is spitting out wood chips from the bottom of the nest they are working on. Top right: Working the Red Alder tree. Photos by Pete Haggard.





Jene McCovey In Honor of... Submitted by Amber Jamieson,

Environmental Protection Information Center.

Yurok Tribal member from the Klamath River, Jene McCovey, who grew up in Hupa, and was Chetco from the Chetco River; Tolowa from the Smith River; and Chilula from Redwood Creek, passed on in February this year.

Jene McCovey was a lifelong activist for indigenous rights, environmental protection, and social justice issues. She was a mentor and ally to many. She traveled near and far to share her prayers and wisdom on behalf of the four-legged ones, two-legged ones, winged ones, finned ones, and the one-legged ones (plants).

We are grateful for the time Jene shared, and we know her legacy will live on.

Photo of Jene McCovey, courtesy of International Rivers.

RRAS FIELD TRIPS THIS MONTH

See our website for details.

RRAS Virtual Program Presentation

Please join us on Friday, April 9 at 7 pm, for The Local Wildlands Conservancy Preserves

Speaker Alex Blessing, North Coast Preserves Manager for The Wildlands Conservancy, will discuss how the Conservancy recently expanded their network of preserves to the North Coast of Humboldt County. First, in 2008, they acquired the Eel River Estuary Preserve, a 1200-acre property on the south spit of the Eel River. This preserve includes coastal marsh, pasture lands, eight miles of trails, and three miles of dunes for visitors to explore, as well as excellent birding prospects for grassland, waterfowl, raptors, and a myriad of seabirds. Wildlands expanded their local holdings again in 2018 with the addition of the Seawood Cape Preserve, two miles north of Trinidad. Here, visitors can hike the coastal bluffs on a trail down to Scotty's Point to enjoy vast views of the coast, bird and marine mammal watching, tide-pooling, or fishing.

Alex Blessing grew up in the mountains above Santa Cruz California, where he fostered a love for everything outdoors. His youth was spent exploring and learning everything he could about the natural world in his backyard. After attending Humboldt State University, where he completed his undergraduate studies in Natural Resource Planning and Interpretation, he volunteered for the Americorps' Watershed Stewards Project. There he found a love for freshwater fisheries, especially salmon, while surveying creeks on the Eel River and Coastal Mendocino. This led to work with the California Department of Fish and Wildlife as a Fisheries Technician, monitoring salmonids and assisting with restoration projects, such as the Salt River Restoration project where he learned about Wildlands. Joining the Wildlands team in 2014 as a ranger on the Eel River Estuary Preserve, he continues to restore habitat and share the wonder of the place with all who come visit.

Photo below of Seawood Cape Preserve by Alex Blessing.



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Thinking of Joining the Audubon Society?

By sending in your membership, either directly or on the form below, to National Audubon, (rather than replying to solicitations from National Audubon), the fee is sent directly to our chapter if you use the Code RRAS C24. However, when you renew with National, the share of membership dues that RRAS receives is only a couple of dollars.

If you join the local Chapter, RRAS, directly, we receive the total dues both initially and on renewal.

To do so, write a check out to RRAS for \$15 and be sure to inlcude 'local membership" on your check, then mail to:

Redwood Region Audubon Society

P.O. Box 1054, Eureka, CA 95502.

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Please enroll me as a member of the National Audubon Society and of my local chapter (RRAS C24), and send AUDUBON magazine and my membership card to the address below. My check for \$25 is enclosed.

Please make checks out to the National Audubon Society, and send with this coupon to Box 97194, Washington, DC 20090-7194.

EDITOR'S NOTE:

Opinions expressed in this newsletter are not necessarily those of the National Audubon Society or its local chapters. As Editor, my goal is to print a variety of viewpoints, explore new avenues, and initiate healthy discussion.



President's Column

By Gail Kenny

A disturbing topic came up recently in the national news and on the national birding scene, involving the alleged rape of a female, beginning birder, by Jason Ward, a prominent member of the national birding

community. He was the diversity and inclusion officer for the American Bird Conservancy and has been relieved of this job. The birder, Aisha White, is taking him to court. More sexual assault and harassment allegations against other prominent male birders have surfaced as a result. Of course, sexual harassment is not just in the birding community but reflects our broader society.

I am following discussions in the birding community on this topic to gather information for how to make change locally so that women feel safer and more welcomed. I have discussed this with a small group and at some point, will bring the topic forward to our larger birding community with the goal to call out disrespectful behavior, educate each other on how to be more inclusive, and to communicate more kindly and respectfully. The RRAS Field Trip Committee has been discussing ideas on how to help women feel more comfortable in the birding community. We are exploring how to create on-going safe spaces for women birders.

I am aware that some women birders in our community have dealt with harassment, as well as being made to feel less-than, discounted, or dismissed by men. This type of behavior will not be tolerated at RRAS events and activities.

There can be a male-dominated approach to birding by competing to be right, the best, the most experienced, and the most serious, that can detract from the birding experience. People have been made to feel ignored or belittled because they were wrong about bird identification. Men as well as women can be treated this way in the birding community.

Listing has a place in birding, but discussions of bird identification can be done in a way that does not alienate people. Bird identification can be done by consensus after careful observation and sharing of data, as a collaboration instead of a competition. These two approaches often divide along gendered and occasionally generational lines. Many of us would rather prioritize the social aspect of being together outside and doing something we all enjoy. We strive to encourage younger birders who may be less defined by the "rules" to join in and maybe operate a little

We can make birding a more inclusive community by fostering the spirit of cooperation while birding together and comparing notes on birds. We are exploring how to make spaces, perhaps on social media or an app where people can discuss bird sightings without feeling intimidated by expert birders. We want to see more local active chat rooms or other spaces that foster confidence in novice birders. The hardest part of birding is getting familiar with the bird families at first and figuring out how to use your field guide, and when more experienced birders make you feel stupid, that turns novices away.

I recently heard a woman birder on a podcast talking about the "rare bird alert" app where members are discouraged from any discussion other than rare bird sightings. She said her community has another group app that is all about discussing anything to do with birding which she finds much more active and enjoyable than the rare bird group. I would like to see one of those locally.

If you are interested in joining in on discussions exploring solutions to divisiveness in our local birding community, please email me at gailgkenny@gmail.com.

If you experience sexual assault or any type of harassment during a RRAS activity, please know you can reach out to me, or our Field Trip Chair, Janelle Chojnacki. Our contact information is always listed in *The Sandpiper* and on our website.

Below are some resources you may find helpful. (Please feel free to share more resources with me and others.)

- www.rainn.org/;
- leanin.org/sexual-harassment
- Aisha White's *gofundme* page for her legal fees; www.gofundme.com/f/legal-fees-for-aisha-white
- Facebook's World Girl Birders Group; www.facebook.com/ groups/worldgirlbirders/
- North Coast Rape Crisis Team; www.ncrct.org (si una persona bilingüe no esta disponible deje sun ombre e número de teléfono y le regresaremos la llamada lo más pronto
- Domestic Violence Services Crisis: (707) 443-6042 or Toll-Free: (866) 668-6543

GODWIT DAYS FESTIVAL GOES VIRTUAL April 16-18, 2021



Live-streamed and pre-recorded sessions highlighting some favorite species and the spots where they occur.

- Planned topics include: shorebird surveying and fly-off, bird song ID, bird banding, field sketching, HSU Wildlife Museum tour, amphibians, Spotted Owls, and Snowy
- · Special sessions on the past, present, and future of Humboldt birding and a memorial to Stanley "Doc" Harris.
- The Language of Birds: Keynote Lecture by Nathan Pieplow, blogger on recording, identifying, and interpreting bird sounds (www.earbirding.com).

There is no cost to participate but donations are encouraged and greatly appreciated!

Also, to be posted on line during the festival: -

Winners in the 18th annual student bird art contest, cosponsored by Friends of the Arcata Marsh and Redwood Region Audubon Society, and the 16th annual student nature writing contest, sponsored by RRAS.

Visit www.godwitdays.org for updated information, and how to access the sessions.

We are Seeking Silent Auction Items for an online auction in partnership with Godwit Days. If you have items to donate to RRAS, please contact, Gary Friedrichsen at gary@jacobycreek. net or (707) 496-6581 before May 1st! If you want to donate to Godwit Days only, contact Alex Stillman at alexnacy@gmail

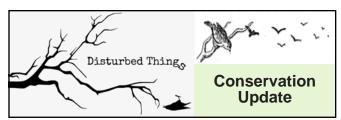
Humboldt Bay Wins Special Site Award!

In 1998, RRAS Conservation Committee member, Chet Ogan, filed the paperwork to form Humboldt Bay Complex as a Western Hemisphere Shorebird Reserve Network (WHSRN) site. Humboldt Bay, or Wigi, to the Wiyot, is the second largest estuary in California; it remains comparatively "pristine" in terms of availability, extent, and diversity of shorebird habitats. Over the past 60 years, 52 species of shorebird have been recorded in the vicinity of the bay, with an estimated 850,000 individuals using local habitats, especially during migration (Colwell et al. 2020).

As a result, Humboldt Bay is a key site for shorebirds along the Pacific Americas Flyway. Within the 19,500 ha of WHSRN site boundaries lie extensive intertidal flats, limited rocky shores, long stretches of sandy, ocean-fronting beach, seasonal freshwater wetlands, riverine estuaries, and agricultural lands. Significantly, WHSRN later recognized the site as one of international importance, and in 2018, WHSRN upgraded the site to hemispheric.

Last December, WHSRN proposed a Site Award for outstanding work in shorebird conservation and management of a shorebird site, based on active management and preservation of shorebird habitat, education and outreach, and a monitoring program. In consultation with partners (see below), Dr. Mark Colwell prepared the supporting evidence and submitted the nomination. Mark has now been notified that out of the whole country, Humboldt Bay Complex was awarded the 2021 Site Award!

Many thanks to all the partners; the Wiyot Tribe, Bureau of Land Management, CA Audubon, California Dept. of Fish and Wildlife, City of Arcata, City of Eureka, Friends of the Dunes, Humboldt Bay Harbor Recreation and Conservation District, Humboldt Bay National Wildlife Refuge, Oiled Wildlife Care Network, Redwood Community Action Agency, Sequoia Zoo, and US Fish and Wildlife Service.



What Else Can You Do with It?

By Jim Clark

In response to testimony presented at the recent hearing for approval of the Rolling Meadows large cannabis grow operation on a 7,110-acre property adjacent to the Eel River near McCann, two planning commissioners made comments summarized by the title. Apparently, grazing and timber production are no longer economically viable on this property. The implication is that the property has little or no economic value other than for commercial cannabis. Like much of the oak savannah/prairie habitat of the north coast counties, grazing and logging have altered the landscape by introducing non-native grasses, and Douglas fir has encroached into oak woodlands and prairies.

As a bird-centric conservation organization, our chapter typically takes positions on proposals based on their potential effects on birds, either directly or through habitat loss. Others object or advocate based on their own interests. What is often missing from the discussion is a thorough economic analysis of environmental services actually or potentially provided by the land involved in the proposal. The economic value of environmental services has been considered as non-quantifiable or at least very difficult to quantify. Satellite imagery and computer aided analysis has allowed us to use science to more easily analyze and quantify the economic value of many environmental services.

One environmental service provided by upland oak savannah/ prairie, such as the Rolling Meadows property, is watershed conservation. We know that replacement of deep-rooted native grasses by annual non-native grasses and replacement of oak by Douglas fir reduces the watershed benefits of these lands. This in turn reduces the value of all water dependent downstream resources including fish birds and late season flow. Modern technology and science now allow us to evaluate these effects and calculate their economic value.

California's land use planning is subject to the California Environmental Quality Act (CEQA). This 52-year-old law has had many updates. There remain, however, many exclusions and conditions that seem to be in conflict with the overall purpose of CEQA. It appears that CEQA has not kept pace with the current state of environmental science. Change is hard. When the conservation committee considers a position on a proposal or project, we often do so while considering CEQA. If an exclusion or condition seems to prevent our opposition, we consider working around it, unless the condition cited is valid. Sometimes it is valid and there is no workaround. If in doubt we may confront the exclusion or condition. Sometimes we prevail, sometimes not.

Audubon's three criteria for action are science, education and law. These are also the tools used by advocates of projects that we don't like. It is therefore important that we educate our elected representatives about current science so that we have better environmental laws.

Lessons on Traditional Ecological Knowledge (TEK) Now Available for Free Download

More educators than ever are recognizing the need for education that centers and affirms multiple cultures and perspectives. Students are typically taught science exclusively from a Western perspective, to the point that science and "Western science" are synonymous to the majority of the American public. The scientific knowledge and values of Indigenous cultures are generally not taught in non-tribally based classrooms. To address this and to bring Indigenous perspectives to the classroom, we are providing a series of lessons on Traditional Ecological Knowledge, sometimes known as Indigenous science, free for all teachers and aimed at 4th - 7th grade. Lessons align with 5th grade NGSS science standards and can be used for upper elementary or middle school.

TEK lessons were developed through a collaboration between Dr. Seafha Ramos (http://seafharamos.com/), an Indigenous (Yurok/ Karuk) wildlife ecologist and NSF Postdoctoral Fellow in Biology, Dr. Olivia Mullins (omullins@science-delivered.org), a science educator and founder of Science Delivered, Cherie Paul, a 5th grade elementary teacher (Pacific Union Elementary), and Maximiliano Quezada, a Wildlife graduate of Humboldt State University. A focus of the collaboration was ensuring the lessons looked at TEK through an Indigenous lens. Because Dr. Ramos and many students of Paul's are members of the Yurok tribe, the lessons have a focus on Yurok TEK as well as TEK generally. TEK lessons can be found at STEMTradingCards.org/teklessons.

Soulatluk (*language of the Wiyot*), and the Winged Ones

Edited and summarized by Lynnika Butler, Linguist for the Wiyot Tribe; Reprinted courtesy of the Wiyot Tribe's Cultural Department

In Soulatluk (the language of the Wiyot people), many animals have more than one name. Often, an animal may have one short name that is its "basic" name (it doesn't have any other meaning besides naming a specific animal), and one or more complex descriptive names. These longer descriptive names may capture some physical characteristic of the animal (such as its appearance or behavior), or they may make reference to traditional Wiyot lhatsik—stories and traditions.

Guroush/Quroush, from the Wiyot story of Curlew in the February issue of *The Sandpiper*, is an example of a short/basic bird name. This month, we introduce examples of several birds with both short and longer descriptive Soulatluk names, as well as some bird-related vocabulary. Some Soulatluk words were pronounced slightly differently by different families, and/or can be expressed with slight differences in grammatical structure.

Tsoutsgish is the general word for 'bird'. As far as we know, it is a basic name, with no descriptive meaning. The sentence Tsoutsgish du rarushilh means 'the bird is flying'; Da gutswurarushilh means 'many are flying' (guts is a verb stem that means 'be many').

Di'l is the short name for the bald eagle, but it can also be referred to as shawedoushilh, which literally means 'white-skulled one'.

Crows can be referred to as **gatsirr** (short name) or **siswupdi'lu** ('black-feathered one'). The rather poetic name gatsirr sharuvushach ('crow's little niece') is one of two descriptive words for a blackbird (the short/basic name is unknown). Presumably this name has to do with the fact that blackbirds resemble small crows, though it may also relate to a specific story.

The Steller's jay's short name is hechurra' or churra', but the more frequently used name is the descriptive **lhimayousu'lu**, which means 'the crested one,' referring to the crest of feathers

Tsiqatsharuwilh (kingfisher) means 'one who makes little dives down' (into the water to

Tyaqh is the short name for the Northern flicker, but it also has at least two descriptive names: vus ya rretgu'lu (literally 'firelike-chested one') refers to the reddish color of the feathers on its neck and wingtips; and hi'durr wiwu'l (lit. 'North Wind's wife') probably refers to a

Lastly, a few words relating to birds generally:

walupt ('feather') contains the -upt 'fuzzy' classifier

dutk and dutgi' ('egg') are two ways of describing a round object with no openings wuchwurrach is the word for 'wing'

munughulh ('bird's nest') literally means 'what is used to keep warm'







tsoutsgish (Nettie Rossia. Della Prince.



walupt (Della Prince)

To hear Soulatluk spoken natively, hover over the audio files above with your phone camera.

English	Basic Name	Descriptive Name
Bald Eagle	di'l	shawedoushilh
Crow	gatsirr	siswupdi'l
Blackbird	_	gatsirr sharuvushach
Northern Flicker	tyaqh	vus ya rretgu'lu' / hi'durr wiwu'l
Bird	tsoutsgish	_
Night Heron	qaqhsh	_
Quail	_	wuda' dishgiqagilh
Seagull	tsu'rik	jougi'chuchk
Feather	walupt	_
Owl	pitsou'laksh	_
Meadowlark	doubitk	_







Photos of a shawedoushilh nest in Southern Humboldt by wildlife photographer, Ann Constantino: "I have been following this nest for ten years now and at least one bird has fledged every year, except 2013."

Open to Interpretation:

An Interview with Erika Granadino, Humboldt Redwoods State Park Interpreter/Intérprete Bilingüe, by Gisèle Albertine

Humboldt Redwoods State Park (HRSP) is classified as both a World Heritage Site and an International Biosphere Reserve. But before all that came about, it was the territory of the Lolangkok Sinkyone. On a sunny day in February, I drove down to Southern Humboldt, and met up with Park Interpreter Erika Granadino, to explore her experiences as a woman of color working on what used to be Lolangkok land.



Editor: Can you tell me about where were you born and raised? Erika: I was born in Santa Ana, the second biggest city in El Salvador. It's a tropical climate and there are lots of trees everywhere in the City. But the regard for nature is totally different than here, and you see a lot of litter. There isn't the public funding like here, to help clean up the streets; it's a completely different system. But there's still a lot of beauty there and I always lived close to the coast, so when I came to Humboldt County, it reminded me of El Salvador.

Some of my fondest memories were how the air smelled from the coffee plantations and going to the beach. In a way, Humboldt County was like a little piece of El Salvador – it's by the coast and you have so much greenery around. My Mom always nurtured things. In El Salvador, she always had a beautiful garden so even if we were in a concrete jungle, she'd make sure there was a little piece of green. I think she tried to bring that with us. She would always paint the house in bright colors, anything that reminded her of El Salvador.

I was seven years old when we arrived in San Francisco. We didn't speak English and it was crazy-expensive there, so we moved around a lot. I went to high school in San Jose. My mom always wanted me to go to college and I got accepted into HSU which at the time was the cheapest CSU around. I was always interested in the sciences and growing up my Mom put me in a program called *Expanding Your Horizons*, a program taught by women for girls, to encourage them to enter the sciences. Even though I would get called, *immigrant* and other labels, I come from a hard-working family and I believed that I could make it – having the support of my Mom was always very important.

I got my degree at HSU in Environmental Management and Protection. When I was a kid, there was a war going on in El Salvador and my Mom never fully graduated so she always pushed me to finish school. It was really tough for her – she was a single mom and it was super expensive here so she was always working, but she always made me feel loved. Anyway, now it feels really good to finally stay in one place and put my own roots down.

There wasn't that much Hispanic culture up here when I first got to Humboldt in 2012, but I've seen it slowly but surely growing. I see a lot more Hispanic families now when I go out shopping, probably more in Fortuna than other places. I always felt that even though there was a piece of me here, I was still an outcast because there was so much missing from my culture. Even just getting to speak Spanish is not something I get to do here regularly because not that many people speak Spanish here. Even if they are Hispanic, they are often second generation so it's not the same. It was hard finding work here so I was thrilled to get this position at HRSP.

Editor: What do your current duties at the park entail? *Erika:* Currently, I do a PORTS program which is like a virtual field trip for school children. I do mine on the Herstory (history that includes women) of redwood conservation. In a non-Covid year they would include leading guided walks, tabling, and the junior ranger program. I'm also responsible for certain outreach activities and development of interpretative and educational programming. When I did tabling for the park last summer, I saw a lot of Latino families, so I thought, I'll do the program in Spanish too – it seems like there's a need for it. I would love to do more in Spanish and I feel like eventually I will be able to, but this is a government organization so they have to figure out where the money is going to come from, and you have to go through all these steps and people and it just becomes complicated.

Since COVID, people want to connect more with parks and like having interpreters, and they want the messages and the stories

that we share to be more diverse. It's important that our district is doing a really good job of that. Of course, there's still so much room to grow. The origins of state parks are tied in with eugenics and the founders of Save the Redwoods League, so there's a lot of dark history in most state parks.

Éditor: Can you tell me about the history of the land here? *Erika:* We are in native Lolangkok Sinkyone territory. The Lolangkok (their name for Bull Creek), were here since time immemorial. At least 15 villages have been found in what is now called HRSP. Today more than ten percent of the population of Humboldt County are Native American, including many people of Sinkyone descent who live along the North Coast.

As a park and as a district in general, we are looking at revamping the signage here. Some staff are tasked with going through the parks and seeing which ones need re-evaluating in terms of respect and inaccuracies and which ones need to be taken down. We are celebrating our 100th anniversary this year and people are coming to this park and seeing Founder's Grove and Bolling Grove Memorial, which all commemorate White people. But this park was Native territory. Then logging and mining came here and just exacerbated the ongoing genocide and displacement of the Tribes. Obviously, Native people always cared about this place and wanted to protect it but if you're undergoing terrorism, and your voices aren't even heard – how can you? There was so much devastation from the logging happening here, that eventually certain White people actually took notice and decided to protect this land. Of course, there were probably many voices, but it was the people that were rich or had prestige who got heard.

In the 1920's, Madison Grant and two other men founded Save the Redwoods League (SRL) so it was basically an organization of rich, powerful White men. It appears as if it was just them and their field trip to the woods that saved this land, and they get all the credit. However, at least one of the men behind this organization at the time, was into eugenics and his book was idolized by Adolf Hitler who called it his bible. Grant's book was based on eugenics, and how certain plants or species are superior to others.



But before SRL got involved, there were women's clubs and federations here in Humboldt County that were trying to save the last of the old growth trees. One of the leaders was a woman named, Laura Mahan, and there's a trail that commemorates her. I tell the children about her, the Herstory of the park and the preservation of the redwoods. I want to shed light on the women that actually were the first to pave the way for the early conservation movement, and saved a lot of historical lands in state and national parks. She actually put her body in front of the machinery to prevent the trees being cut, so she was an early activist!

Laura Mahan grew up in Loleta, Ca. She was White and went to college so her family had money as with most of the women in federations back then. Philanthropy came about around that time too because there were so many colonizers or descendants of colonizers who made their money from ranching or mining – literally stealing the land from Native people, extracting natural resources often with enslavement. Mahan didn't get married till she was 40, went to school, and studied landscape art; which already tells you that she loved nature and wasn't traditional. In 1900, when the California Federation of Women's Clubs was founded, women's clubs were on the forefront of forest policy reform. I tell the kids that at the time, these women couldn't even vote which tells you how much more of a struggle it was for them; it wasn't easy as women to get their voices across. They still took whatever privilege they had, being White and rich, but they used it in this case to help save the redwoods.

Women worked really hard, and they got petitions signed to create a national park but it didn't work out for them. One of the places Mahan tried to save was Carson Redwoods, which ended up being logged so they must have felt somewhat defeated at that point. And then in 1919 here come these three men who start Save the Redwoods League after taking a trip up here and deciding they needed to save the forest. But Mahan was smart; instead of being

mad, and feeling like she had done all the work and then here they come, hanging on her coat tails and getting all the success and credit, she decided, well I'm going to utilize this. The very next day, after the formation of the Save the Redwoods League, she held a conference with her Eureka Women's Club and formed the very first Women's Save the Redwoods League. Because, of course, the men wouldn't allow women to be part of their group.

So, it was really Laura Mahan and all these women's clubs through their grassroots efforts who got the word out to the public – more to the everyday person as opposed to SRL who were only talking to the politicians and people with power. I believe it was the women who got permission from the Postmaster General at the time, to get every piece of mail that came from Humboldt County to have a stamp that said, Save the Redwoods.

Some visitors to our park are bothered by the naming of Founder's Grove, or Rockefeller Forest. Last summer a visiting couple who had seen some of the signage, asked me where they could make a formal complaint. The man was crying because they couldn't see anything that really commemorated the Native American heritage here. There's no point pretending bad things didn't happen so we need to acknowledge it. I think the state park system is looking more introspectively into its history now, at how we can do better. I know our district is doing a lot and leading by example, which I think is one of the main reasons it's really exciting to be working here.

I believe it is really important for us humans to maintain a relationship with nature. Unfortunately, many of us have become detached from nature. I recognize that it is a privilege to have access to it, which not all of us have, and for that I feel very lucky. I love that I can explore the outdoors and also have my experiences be a teaching moment for others. There is so much that happens throughout the seasons, and much that I still have to discover!

I went to university to study science, but nothing compares to the guidance and teaching of nature. It can be beautiful and gentle like watching the trilliums bloom, or dangerous, like when a branch or "widow maker" comes crashing down.

I love how nature manages to pique my curiosity as it did when I was a child, because not many things do anymore. I have always had a sense of respect towards wildlife, but coming to work at the park has made me more aware of how damaging certain human behaviors can be. I have been guilty of undertaking some of these activities myself in the past such as, feeding wildlife, or leaving behind, "compostable waste." I think this park is probably more theirs (the wildlife) than it is ours.

I treasure being able to spot wildlife, or any signs or tracks of them. It's a reminder of how alive the park really is. One night I spotted this funny, little fox who kept pooping around my porch when I lived there this summer. Was she marking his/her territory? Sometimes I get to see the dark side of how damaging human behaviors can really be. Last summer my coworker found some fox scat. Upon further inspection she discovered the contents were made up almost entirely of plastic. Depending on how much plastic was consumed by this poor little fox, it could ensure the animal will endure a slow and painful death, blocking her intestines and starving her to death. It's really heartbreaking to know how much these animals have to endure as a result of human behavior. The least we can do is be respectful of these spaces and conscious of our behavior. This is their home, unlike us, they do not have other places to go because there aren't many large and contiguous open green spaces left. Habitat loss, fragmentation, urban sprawl, invasive species, climate change, diseases, you name it, put a terrible strain on all wildlife - humans included!

Honestly, the best part of my job is getting to share information with others, because the lack of it can be harmful to wildlife and humans. Sharing information has the potential to prevent more little foxes from consuming human waste. If there is one thing I would like to tell visitors, it is that nature is a shared space and it is as much our individual responsibility, as it is the governing authority/organization's, to help protect and maintain it.



Photos: Above – Members of the Women's Save the Redwoods League in 1919. From left, Mrs. A. J. Monroe, Mrs. Kate Harpst, driver Frank Silence, Mrs. T. Atkinson and Mrs. Fred Georgeson pause during a tour of Humboldt County. (Freeman Art Company from Humboldt County Historical Society Collection.) Above far left – HRSP signage in Weott. Above center – Erika Granadino in HRSP.

The Environmental Protection epic Information Center

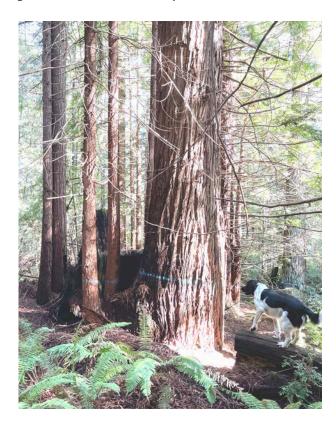


EPIC Joins the Fight to Preserve Jackson Demonstration State Forest

Matt Simmons, EPIC

The land that is now called the Jackson Demonstration State Forest ("JDSF") has been the home of the Coast Yuki and Northern Pomo peoples since time immemorial. The Coast Yuki and Northern Pomo used this coastal redwood forest as a place to gather food, and as a source for basket weaving materials and medicinal plants. They lived in harmony with the forest, only using redwood trees that had naturally fallen. During the 1850s, the newly created State of California initiated a genocidal campaign to rid Northern California of native Californians. The result was an 80% reduction in the population of Native Californians in Mendocino County and the sale of their lands by California for private non-native ownership.

It was in this context that the Caspar Lumber Company purchased a large tract of forest land and proceeded to systematically clear cut the original oldgrowth redwood forest. By 1947, almost the entire



Large second growth trees in JDSF marked to be cut in an upcoming timber harvest. Photo by Matt Simmons

forest had been harvested at least once. After that, the State of California decided to purchase the land. The idea was that the newly created JDSF (officially created in 1949) would be a place for the State of California to demonstrate for private industrial timber owners how to harvest timber in a more efficient and less environmentally harmful manner. While logging has continued under the state's ownership, and 75% of the forest has seen one or more harvest incursions, some of the forest has remained untouched for the past 90 years. In that time, something miraculous has begun to happen; stands of new, second-growth forest have emerged, which are beginning to take on some of the characteristics of an old-growth redwood forest. Now, CAL FIRE has proposed several timber harvest plans within these second growth stands, and EPIC is very concerned.

Because most private timberlands in California are operated as timber plantations where the timber is harvested every 40 years, second-growth forest stands like those found within JDSF are exceedingly rare. These second-growth forest stands provide critical habitat for a wide variety of threatened species. For example, Northern spotted owls depend on older forests for their unique habitat and these stands within JDSF are just beginning to take on the characteristics necessary for northern spotted owls to thrive. Another reason CAL FIRE should refrain from logging JDSF is that it provides ample recreation opportunities for Californians. JDSF is located very near the cities of Mendocino and Fort Bragg. Because of this, the forest has developed into a place cherished by thousands of recreational users as a place to exercise and connect with nature. Now, CAL FIRE has plans to log more than four and a half square miles of the oldest remaining redwood groves, all in the most popular and recreated Western segment of the forest. Some of the harvests will be located so close to Mendocino Woodlands State Park, a popular summer camp destination, that campers will be forced to endure the sounds of chainsaws felling nearby trees from their cabins. CAL FIRE's timber harvest plans also call for the closure of a large number of trails within JDSF which will severely limit recreational opportunities in the coming years.

Perhaps most shocking of all, CAL FIRE has decided to participate in climate denial. Scientists have known for decades that climate change is manmade. However, with language one would expect from the



The result of a recent timber harvest in JDSF; Matt Simmons

Trump Administration, the greenhouse gas emissions section of the timber harvest plans begin with the following equivocation: "exactly how and to what extent human activity plays a role in global climate change appears to be unknown." CAL FIRE needs to be held accountable for the climate disinformation contained within its timber harvest plans. We believe that CAL FIRE should be demonstrating how a forest can sequester carbon most effectively. Research has shown that mature second growth redwood forests sequester carbon at an especially high rate, so properly managing JDSF is a crucial piece of California's climate goals. But, do we really trust an agency that denies that humans cause climate change to do so?

EPIC has partnered with local environmental organizations as well as the Coyote Valley Band of Pomo Indians to advocate against these Timber Harvest Plans. Along with submitting comments highlighting the environmental problems and legal inadequacy of these plans, EPIC has begun advocating for a change in how JDSF is managed. Our hope is that, by stopping these timber harvests, JDSF can become one of the first "new old-growth" redwood forests in California.

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Community Coastal Column

MICROPLASTICS & PLANKTON

Ivy Munnerlyn, Coastal Programs Coordinator

If you've been reading EcoNews for a while, you've probably heard of microplastics. These tiny, ubiquitous plastic pieces are a major headache for folks who care about the health of our oceans and waterways. They seem to be everywhere, from the deepest undersea trenches to the glacial ice of the North Pole. Microplastics come in many forms and can affect life in the ocean at every level of the food chain, from the tiniest plankton to bigger fish and marine mammals.

There are four main types of microplastics: fragments, nurdles, microbeads, and microfibers. Microplastic fragments are probably the ones you're most familiar with — these are the tiny pieces that break off from larger items, like a plastic bottle cap. The second category is a little more obscure; nurdles are small plastic beads that manufacturers produce and sell to other companies to melt down into the items we buy at the store (think of them as the "raw material" that makes your toothbrush). These microplastics can be released into the ocean when a shipping container on a cargo ship goes overboard.

The third type of microplastics is one you might be familiar with — microbeads. These are tiny plastic balls that get incorporated into our personal care products as exfoliants. You can avoid these microplastics by checking for "Polypropylene" and "Polyethylene" on the ingredients list when buying toothpaste and face wash. The fourth category of microplastics is the one we'll be focusing on today: microfibers. When we wash clothes made of synthetic fibers, thousands of tiny plastic threads are swept into the waste water stream, eventually flushing

out into the ocean. Acrylic fabrics are the most notorious, releasing over 700,000 fibers on their first wash. Subsequent washes release less fibers, but that's still a lot! It's no wonder microfibers are one of the biggest contributors to microplastic pollution. But what does washing your new Patagonia fleece have to do with the marine food chain?

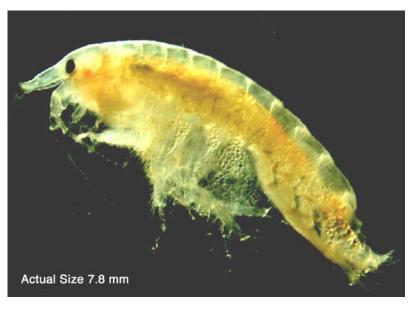
To answer that question, we have to start with the organisms at the very bottom of the food chain: plankton. Plankton is the general term for the billions of microscopic creatures that live in our oceans and waterways. The word plankton comes from the Greek for "tiny drifter," and that's precisely what they are. Plankton are too small to chart their own path through the tides — they simply drift along, hoping to run into some food along their journey. Zooplankton — which can look like miniature shrimp, electric razors, or hairy worms — are happy to gobble up anything smaller than they are.

Often, this includes microfibers and other microplastics. According to a 2019 paper by Vivian S. Lin, zooplankton that consume plastics suffer decreased appetite and reproductive success. Not only that, but the microplastics can travel up the food chain to the bigger creatures that eat zooplankton — like fish and shellfish. Microplastics have been found in samples from seafood markets, so they affect us too!

You might be wondering, what can I do about the



Microplastic poses a growing concern in oceans and other aquatic habitat. Image by 5Gyres, courtesy of Oregon State University Flikr Creative Commons.



Zooplankton, *Amphipod Diporeia*. Actual size 7.8 mm. Microphotograph taken by M. Quigley April 2000. Photo source: NOAA Great Lakes Environmental Research Laboratory Flikr Creative Commons.

issue of microplastic pollution? It's one of those frustrating problems that could be more efficiently solved if companies simply made a few changes to their products. But there are several ways we can reduce the amount of microfibers going down the drain, and they're all pretty easy! First, we can choose to buy clothes made of natural fibers like cotton, hemp, wool, and silk. There's no danger in washing these items, but they can be a little pricey — and if you're like me, you probably own several fleece jackets that you'd be sad to part with. The next best option is to simply wash your synthetic fiber clothes less often. A spot clean here and there and a few hours hanging outside can go a long way for freshening up clothes in between washes. A third option is to invest in one of several products that help trap microfibers before they leave your washing machine. The Guppyfriend Wash Bag, Cora Ball, and Lint LUV-R all filter out some of the fibers that would normally end up in the ocean. And if you want to help reduce other forms of microplastic litter, there's always a good old fashioned beach cleanup! If you're interested in getting started as a cleanup volunteer, check out our Trash Trackers program on our website. No experience required — just a passion for keeping our streets and beaches plastic-free.

When you pick up a plastic water bottle off the beach, you're preventing that bottle from floating out to sea and becoming food for plankton as it breaks down. Microplastics can seem like an issue too big to tackle — but rest assured, there are plenty of ways to help! Want to learn more? Check out these YouTube videos:

- youtu.be/XRT0G-utaWI
- $\bullet \ \ youtu.be/beUhzQAkanM$

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New State Study Aims to Protect Drinking Water for 88,000 People



Jennifer Kalt, Director

More than a decade after declaring an "Imminent and Substantial Endangerment" to public health from contaminated groundwater moving toward Mad River, the State Department of Toxic Substances Control (DTSC) is finally resuming work to determine the extent of the dioxin plume and to plan next steps to protect the region's drinking water.

The site is in the unincorporated community of Glendale (near Blue Lake), approximately one mile upstream of the drinking water supplies for nearly 90,000 people in the Humboldt Bay area. This includes Arcata, Eureka, McKinleyville, Blue Lake, and the Samoa Peninsula.

DTSC consultants recently sampled groundwater and surface water on the site to identify how far contamination has spread toward Mad River from the former McNamara & Peepe Lumber Mill. The results will inform next steps to prevent toxic chemicals from reaching Mad River. The mill's contaminants include the wood preservative pentachlorophenol (known as PCP or penta), which was banned in the 1980s for most uses due to high concentrations of dioxins – some of the most toxic and persistent chemicals ever manufactured.

This study comes two years after the DTSC decertified the 1998 cleanup, which involved "capping" the hotspot with concrete in an effort to prevent rainwater from mobilizing toxic chemicals further into groundwater and/or into Mad River. The cap failure is linked to a 15-foot rise in groundwater elevation, which has brought groundwater into contact with contaminated soil below the cap. This rise in groundwater is likely the result of the 2002 closure of an on-site well that the mill had pumped for decades.

DTSC took responsibility for the cleanup in the 1990s, when the current landowner, Blue Lake Forest Products, filed for bankruptcy protection. McNamara & Peepe had previously also filed for bankruptcy protection,

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humboldtbaykeeper.org alerts@humboldtbaykeeper.org IG @humboldt_baykeeper TW @HumBaykeeper FB /HumBaykeeper leaving the State to manage the toxic byproducts of these for-profit ventures.

In 2005, high levels of PCP were detected beyond the cap, moving toward an unnamed tributary of Hall Creek, a salmon-bearing stream that flows into Mad River. The 2008 'Imminent and Substantial Endangerment Determination' declared that a response action was necessary because a release or threatened release of a hazardous substance may cause an imminent and substantial endangerment to public health, welfare, or the environment.

Since 2008, sampling was conducted and reports written, but it wasn't until 2018 that DTSC decided the cap had failed to contain the contamination. A new cleanup plan, expected in 2019, was delayed to March 2021. Groundwater and surface water sampling in the next few months will help identify next steps. This move by the State follows two years of correspondence by the Humboldt Bay Municipal Water District urging the DTSC to sample in preparation for implementing

a renewed clean-up plan for the toxic contamination at the site.

The Water District's General Manager, John Friedenbach said, "We have been monitoring this site and DTSC for decades. Given the failure of DTSC's Remedial Action Plan, we have increased our pressure on DTSC to design and implement a viable cleanup plan to safeguard the water supply for the Humboldt County residents that we serve."

We will be reviewing the sampling results as well as DTSC's plans for cleaning up and containing the contamination before it reaches Mad River. Working with Baykeeper's scientific experts, Humboldt Bay Municipal Water District, Blue Lake Rancheria, Glendale residents, and others, we will keep the public informed while ensuring that our drinking water and the environment receive the best possible protections from degradation by these legacy pollutants. More information is available at DTSC's EnviroStor database at www.envirostor. dtsc.ca.gov.



Local bird lover Amaya Bechler has been guiding Baykeeper's free, COVID-safe tours on the Eureka Waterfront and Hikshari'Trails since July 2020. On March 7, we had the pleasure of seeing two Townsend's warblers "gleaning" (foraging insects) in a Monterey cypress tree at Halvorsen Park. Many thanks to Amaya for sharing her enthusiasm and knowledge of birds, and to the California Coastal Conservancy for funding our Bay Tours program.

NORTH GROUP REDWOOD CHAPTER



Public Land Policies for the Biden Administration

Felice Pace, North Group Water Chairperson

In last issue's Eye on Washington report, Dan Sealy included a short reference to President Biden's sweeping Executive Order: Tackling the Climate Crisis at Home and Abroad. The Order invites input from all sectors and interests on how to achieve and sustain the large reductions in emissions needed to reverse the climate catastrophe that is already underway. Sierra Club staff and grassroots volunteers are among the host of environmental activists and conservation organizations providing recommendations and working to influence federal policy.

Sec. 216 of Biden's Order declares the goal of "conserving at least 30 percent of our lands and waters by 2030." It instructs the Secretaries of Interior, Agriculture and Commerce to collect input and report in 90 days on how best to achieve that goal, including: "how to encourage the voluntary adoption of climate-smart agricultural and forestry practices that decrease wildfire risk fueled by climate change and result in additional, measurable, and verifiable carbon reductions and sequestration and that source sustainable bioproducts and fuels."

This part of the Order has spurred a lively debate on how best to manage public and private forests to achieve the climate goal. You can bet the timber industry and lobbyists of all ilk are hard at work to shape federal climate policy to their clients' interests.

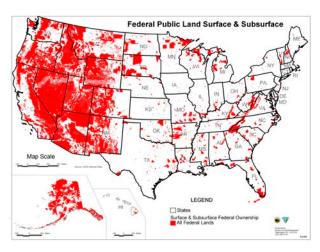
Applying the Best Science

Within the national network of forest organizations and grassroots activists who work on forest issues, the correct path forward is clear, confirmed by the vast preponderance of relevant independent science from around the country and the globe. Below is a brief summary of recommendations circulating within forest and public land circles, as well as some of my own unique recommendations, on how to maximize climate and related benefits on US Public Lands:

 Manage forests on federal and state lands to preserve and restore old forest conditions, including restoring natural fire regimes. Science and experience on the ground confirm that managing for old forest conditions most effectively reduces the risk for catastrophic fire effects and best sustains the "favorable conditions of flow" for which national forests were created.

Meeting Announcement

Share your ideas on public lands as carbon reserves, proposed aquaculture on the Samoa Peninsula or any other topic by joining the North Group's monthly video meetings. For meeting access directions, contact Gregg Gold at greggjgold@aol.com or 707-826-3740.



Many climate activists believe all federal lands, and especially national forests, should be managed as carbon reserves.

- Manage private forests with greater protection for streams and landslide terrain and with longer intervals between logging. Allowing trees to grow larger and longer not only stores more carbon but produces higher value wood products.
- Upland forests and meadows are already our largest reservoirs and they will become even more important as western snowpacks decline. The upper watersheds and headwaters are where investments in restoration of old forest conditions, fire regimes, wetland meadow systems and stream ecosystems will yield the most benefits.
- Most of our remaining unprotected wilderness and old, unlogged forests are located in the upper portions of western river basins. Those lands, as well as all remaining low elevation older forests, should be designated as wilderness.
- Grazing in our public forest and wilderness headwaters should be phased out using voluntary buy-outs financed with private funds. Numerous "vacant" grazing allotments inside wilderness should be permanently closed.
- Abolish timber sales from public lands. The timber sale contract was a great tool when the task was getting logs from the woods to the mills. Because it is ruled by economics, however, the timber sale contract is a poor tool when the task is forest restoration. A much better tool is the service contracts whereby forest restoration work is directly compensated. If commercial logs are "produced" as a result of forest restoration work, they would be sold separately.

Forest restoration requires a skilled, well paid work force and will create robust economic activity if adequate

Check out the Sierra Club Online

The Sierra Club is the only major US environmental organization that is organized democratically. Members elect other members to serve on our national board of directors and as chapter and local group executive committees. Learn about how we are organized, explore issues and take action at www. sierraclub.org.

California is the Sierra Club's home state and in California we have Sierra Club California, the voice of the Club and its members in Sacramento. The California office works on a variety of issues that have a special California nexus including fire and public forest management. Our dedicated Sacramento staff has led the Club's opposition to biomass incineration which is dirty energy that damages forests and degrades air quality. Check out Sierra Club California at www.sierraclub.org/california.

funds are invested. Some of us call that "the Green New Deal for Public Lands." In my view, equity and practical decolonization suggest that federal tribes be afforded the opportunity to contract the needed restoration work within their ancestral homelands on a priority basis and even to administer public lands if they have the capacity and interest, under the same laws and public protections by which federal agencies operate.

Some of the items outlined above require that society control the post-modern human impulse to "manage" everything. It is precisely that attitude which got us into our present climate predicament. While there are contributions humans can and must make to avoiding catastrophic climate change, restraint on human hubris is indispensable if we are to succeed.



Managing national forests as carbon reserves requires restoring natural fire regimes, including by allowing wildfires to burn naturally when they do not threaten homes and communities.

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The Post-Capitalism Conference: A Deep Dive For The Pearl Of Worldly Wisdom

Farzad Forouhar, Cooperation Humboldt

Imagine a little tiny baby hamster that you can hold in your palm. Usually, hamsters double their weight every week up to ten to twelve weeks and then stop growing. But what if your hamster does not stop growing? Well, by its first birthday, you have a ten-billion-ton hamster which would eat the entire yearly corn production of the world in one day. This is what unending growth looks like. It turns a cute, lovely hamster into a monster that exploits the resources of our world in less than a day. Now think of capitalism. Capitalism is like that hamster that does not stop growing. Same as the hamster that looks so adorable and innocuous at the beginning, so does capitalism. Nevertheless, as time goes further, capitalism, like the hamster, becomes something scary as it exploits our finite planet and its natural resources.

Although it seems innocuous, capitalism is a hegemonic discourse (a story the ruling class tells to justify its power) characterized by competitive, exploitative, individualistic, and divisive principles embodied in raced, classed, and gendered relations. It lacks diversity and pluralism in its view of the world and human beings. Everything and everyone are merely cogs in the machine with an expiration date. Capitalism degrades and desensitizes humans. In a capitalist society, people are nothing but mere numbers. You are what your credit score says you

This is what unending growth looks like. It turns a cute, lovely hamster into a monster that exploits the resources of our world in less than a day.

are. There is no sense of any humane values regarding people in this view, and we are compelled to consume and spend more to get our credit scores higher so we can spend more. A vicious circle! Capitalism exploits us by extracting the surplus-value and considers profit as its fundamental right and, on top of that, encourages us to consume, consume, and consume.

Going back to my example of the hamster, this monstrous creature of capitalism has some tentacles that it relies upon to survive, like colonialism, settler colonialism,

imperialism, technology determinism, propaganda, and inadequate public education. These parts have a vital role in the resiliency and flexibility of capitalism that help it evolve throughout time and endure any threat to its existence. Nevertheless, we come to a point, a historical conjuncture, in which capitalism's unending growth becomes its Achilles' heel. Climate change, unprecedented global warming, increase in intensity and quantity of natural disasters like wildfires, floods, and longer hot seasons, along with species extinction, are a few to name. Our planet is finite, and capitalism exploited it to an irreversible extent.

Let us think divergent about organizing an economy that creates the most convivial ways of living, not just for people but for all inhabitants on the earth and the planet herself. The way to peace and sustainable living cannot be found in capitalism. Rather, the prevalence of capitalism and capitalist relations of production have weakened our infrastructures, exploited our natural resources, and devastated our planet. Nevertheless, there will come a time when we must reclaim our rights and alter the hegemonic narrative of capitalism. We need alternative, sustainable, and ecological growth schemes and economic solutions that allow us to be ourselves and work in concert with our planet and its inhabitants.

One opportunity to learn more about the alternative narratives and become ready for a post-capitalist world is the second Post-Capitalism Conference (PCC). This virtual conference will be held on April 22-25, 2021 by Cooperation Humboldt, The US Solidarity Economy Network, and Humboldt State University. The conference will be available online using the web platforms of Eventee, Zoom, and YouTube, along with being aired on television and radio stations, local and national.

This year's virtual conference will provide an exceptional opportunity to expand the conversation about the post-capitalist world through the intellectual contributions of the organizers and guest speakers. Noam Chomsky and Kali Akuno will discuss the post-pandemic economy and share their thoughts on the potentials for a transition to a solidarity economy. Richard Wolff and Emily Kawano will ponder the solidarity economy as the best alternative to the capitalist economy. David Cobb and Michelle Vassel will reflect on regenerative economic development to re-indigenize. Anthony Silvaggio will talk about academic capitalism and assess the neoliberal approach of the California State University system. Jerome Scott will examine racial capitalism, and Kaitlin Reed will confer on capitalism's impacts on the indigenous people of the United States. Trinity Tran will describe public banking as a burgeoning transformational way to democratize economic decisions.

These are just some of the speakers and topics that

This is an opportunity to tamper with the narrative of capitalism to create our own narrative; an ecological and sustainable narrative that is diverse and inclusive, acknowledges the history of the landscape and its people, respects the environment, and appreciates mother Earth and all her inhabitants.

the Post-Capitalism Conference will offer. There will be twenty sessions over four days, and none of them will be competing against other sessions. If you are interested to know more about the Conference and the wide range of the topics provided by the experts who can think out of the box, go to the Cooperation Humboldt website to find out more. It will be an excellent opportunity for our small community in Northern California, especially those who imagine a better tomorrow, to tune in and broaden their perspective of a post-capitalist world.

In terms of the economics and the organization of life, one of our significant failings is a failure to address the question of scale and appropriateness of scale. The notion of scale gives us a lens that, by looking through it, we see a vision of more convivial and ecological ways of development and economic growth that is much more rooted in cultural and traditional practical knowledge and experience. The Post-Capitalism Conference is an excellent occasion that will help to tamper with the narrative of capitalism to create our own narrative; an ecological and sustainable narrative that is diverse and inclusive, acknowledges the history of the landscape and its people, respects the environment, and appreciates mother Earth and all her inhabitants.

I am looking forward to participating in the virtual conference together to enjoy this mental latticework and to discover the pearl of worldly wisdom. Onward to the world we deserve!

WASTE HUMBOLDT

Gifford Hall, Zero Waste Humboldt HSU Intern

Agricultural and forestry practices account for at least 24% of global carbon emissions. Under current management practices, agriculture remains one of the leading contributors to global carbon emissions. The good news is that agriculture is one of the few economic sectors that has the potential to transition from a net carbon emitter to a net carbon sink with specific techniques and practices broadly known as "carbon farming." These practices contribute to the removal of carbon from the atmosphere, which is sequestered in soil. This method of agriculture has enormous potential for removing greenhouse gases from the atmosphere, a crucial factor of global climate change.

The Carbon Cycle

The carbon cycle is a natural process that fluctuates carbon through five main sources within the planet. Human activity has tipped the balance of the carbon cycle through extracting sequestered carbon as fossil

Carbon Farming: A Win-Win?

fuels. These dense forms of carbon release carbon dioxide when burned, trapping the sun's heat and altering the global climate. We have an opportunity to restore balance within the carbon cycle and ameliorate climate change, build resilience to drought and increase our agricultural productivity naturally. This natural solution is called Carbon Farming.

Carbon farming is a broad set of agricultural practices that result in increased storage of atmospheric carbon in soil. Many of these practices are common in organic farming, regenerative agriculture, permaculture, and other approaches to food production. Although most conventional agriculture practices result in the release of carbon, practices classified under carbon farming aim to do the opposite.

There are at least thirty-two on-farm conservation practices that are known to improve soil health and sequester carbon, while producing important cobenefits: increased water retention, hydrological function, biodiversity, and resilience. Here are a few examples of practices that farmers (or even gardeners) can use to help sequester carbon and improve soil health:

- 1. Leftover biomass is returned to the soil as mulch after harvest instead of being removed or burned.
- 2. Conventional tillage practices are replaced by conservation tillage, no till, and/or mulch farming.

- 3. Cover crops are grown during the off-season instead of leaving croplands bare.
- 4. Continuous monocultures are replaced by high diversity crop rotations and integrated farming practices.
- 5. Intensive use of chemical fertilizers is replaced by nutrient management and precision farming.
- 6. Intensive cropping is replaced by croplands integrated with trees and livestock.
- 7. Surface flood irrigation is replaced by drip, furrow, or sub-irrigation.
- 8. The indiscriminate use of pesticides is replaced by integrated pest management techniques.
- 9. Degraded soils are restored to their natural states instead of being used as cropland.

Recent studies demonstrate the efficacy of carbon-beneficial agricultural practices in increasing soil carbon sequestration. Compost use has been shown to increase the amount of carbon stored in both grassland and cropland soils and has important co-benefits, such as increased primary productivity and water-holding capacity.

A group of concerned Redwood Coast residents, climate action and environmental organizations led by Dr. Wendy Ring are currently researching carbon farming to address the growing problem of food waste in Humboldt. To learn more, email zerowastehumboldt@gmail.com.

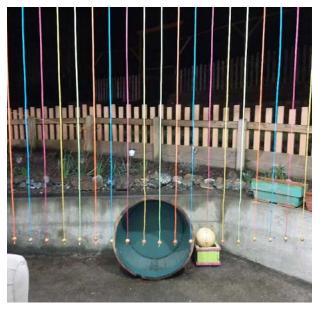


Mairead Dodd and Peter Zizza

After several fatalities and dazed feathered friends hitting our sliding glass doors, we decided to take action. Decals, streamers and keeping the blinds closed were not effective. Further research led us to the Zen Bird Curtain. Since putting it up we have observed the birds avoiding this area. Most Zen Bird Curtains are designed to be placed directly over the windows. However-we felt this was not an option in this circumstance. Because of

its location the strands occasionally become entangled with feisty winds and people walking through them hurriedly. However, we don't mind taking a moment of Zen to restore order to the strands when this happens. You can go on-line and find several videos on how to create one. We are happy to say there are no more bird eulogies since installing ours!

Photo caption: Zen Bird Curtains at night. Image credit to Mairead Dodd and Peter Zizza.









Dan Sealy, NEC Legislative Analyst

NEW LEADERSHIP

Transition for the new administration has been intentionally slowed by outgoing leadership. President Biden's priority has been confirmation of officials in national security, economy and justice while conservation leadership had to wait. There is, however, some progress to report. Change is in the air.

SECRETARY OF AGRICULTURE - TOM VILSACK

The heart of the Department of Agriculture (USDA) is farming, crops, and ranching; feeding the nation's people. In the west and Pacific Northwest, when residents think about the USDA, the US Forest Service (USFS) and its impacts on public lands comes to mind instead of the programs that benefit nearby ranchers and organic farms. That uncomfortable juxtaposition of forestry administered by farmers has been the crux of decades of frustration. Attempts to move the USFS from the USDA to a more sympathetic Department of the Interior has failed even under the most friendly of political climates. Tom Vilsack was confirmed as Sec. of the USDA, a position he also served under President Obama. He held his first employee Town Hall on March 4 to reintroduce himself. He outlined new priorities of the Biden Administration and reassured the demoralized employees of better days to come. Key to conservation priorities are: food and nutrition insecurity, departmental diversity and inclusion, and climate change. Yes, climate change is back. In response to employees' questions he reiterated his better understanding of the role of the strong USDA science and research that promotes better nutrition and better conservation of agricultural lands. He spoke directly of the agency's responsibilities to solve the problems of the climate crisis. When Chief of the US Forest Service (USFS), Vicki Christiansen, asked about his priorities for the USFS he acknowledged that the workload and responsibilities of the USFS is greater than the budget to perform all of those duties. He said he would work with the administration and congressional supporters to find ways to fund important programs. He restated he understood the role our forests play in carbon sequestration. Vilsack committed specifically to allowing the agency scientists to work independently of politics. He also committed to re-engaging the Civilian Conservation Corps, originally created by President Roosevelt during the Great Depression, but in a new role to tackle the climate crisis and as a means to introduce a new, diverse youth to the mission of the USDA.

SECRETARY OF THE INTERIOR - DEB HAALAND

Rep. Deb Haaland (formerly D-NM) was confirmed by the full Senate by a vote of 51 yea - 40 nay. She received support from Senators Murkowski (R-AK) Collins (R-ME) and Manchin (D-WV.) As a member of the Laguna Pueblo, she is the first Native American to serve as the Secretary of the Interior and also the first to hold a cabinet level position. Oil industry representatives opposed her nomination because Haaland supports President Biden's clamping down on new drilling permits on federal lands and waters. Haaland personally attended rallies supporting tribes protesting the Dakota Access oil pipeline. When challenged regarding her support of that protest, she responded, "The reason I did that is because I agreed with the tribe that they felt they weren't consulted in the best way. I know that tribal consultation is important, and that was the reason that I was there." Having a Native American as the head of the department that oversees the Bureau of Indian Affairs is more than optics; she will have an opportunity to make real change in an agency that is fraught with lack of trust, a poor record on providing education and health services to tribes, and intertribal tensions.

MAKE YOUR VOICE HEARD

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U.S. REPRESENTATIVE - CALIFORNIA DISTRICT 2

Congressman Jared Huffman

www.huffman.house.gov

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Governor Gavin Newsom

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Lanphere and Ma-le'l Dunes

Continued from page 7

Scientific Questions

NNLs are recognized as "magnets" for scientific research that helps unlock clues to geologic and ecological factors. Lanphere and Ma-le'l Dunes provide a rich first-hand opportunity for scientists.

Kagan wonders about the impacts on sand deposition and erosion caused by new dams, less water and climate change. Pickart recorded impacts in the dunes of a mega-earthquake 300 years ago. And Alpert finds it puzzling that a native strawberry can be found along coasts from the Aleutians to Santa Barbara but has not been found inland. What more might we learn?

Threats

The scientists agree, beyond the effects associated with climate change (sea level rise, drought and extreme storms), the biggest continuing threat is invasive plants pushing out native vegetation.

Native dune restoration requires a Herculean effort. If any European beach grass is present with its long runners buried in the sand, it must be removed. In the 1990's the first major dune restoration project on the west coast began at Lanphere dunes. Using almost entirely human-powered invasive plant removal the USFWS and conservation partners have restored about 16 acres. The BLM, under the supervision of botanist Jennifer Wheeler, accomplished about the same acreage working with the California Conservation Corps. She was awarded the 2019 "Champion of the Year" by the BLM for her work.

Dunes are very fragile environments. Visitors can help protect the ecosystems by staying on designated trails, only bringing pets where allowed, and not removing wildflowers, plants and wildlife from the public lands. Do take a deeper dive by volunteering at a nature center or helping with dune restoration by contacting one of the offices below.

Once again, our natural community is recognized as the "Best of the Best!" But we knew that already!

Learn more:

- Friends of the Dunes and Humboldt Coastal Nature Center and guided Walks friendsofthedunes.org/ (707) 444-1397
- Humboldt Bay National Wildlife Refuge Visitor Center fws.gov/refuge/humboldt_bay/
- National Natural Landmarks Program nps.gov/subjects/nnlandmarks/index.htm

CREATURE FEATURE

Tom Lisle

With wonder or horror, many of you may have noticed mounds of conifer needles and bits of dried grass teaming with ants at various places on the North Coast. These are nests of 'thatching' or 'red wood' ants, which range over mid to high latitudes of the northern hemisphere worldwide. They are native to our area and can be found from our coastal dunes to the high Trinity Alps. Thatching ants are fairly large with red heads and thoraxes and dark gasters. (Identifying the many similar species of thatch ants is best left up to ant taxonomists; barring that, it may be safer to assign casual specimens to the Formica rufa group.) Their distinguishing characteristic is the monumental size of the nests they build. Their largest nests can exceed five feet in diameter, two feet in height and extend even deeper underground.

Why go to all this work to build such an edifice? Insects function best when their muscles and organs are about as warm as ours. A primary purpose of the thatch nest is to provide warm brood chambers in winter to raise workers and fertile queens and drones (males). Interior nest temperatures in all seasons commonly range from 20° to 30° C. In comparison, humans also like our nests to be around 20° C.

How do thatch ants manage to keep their nests

at optimum temperatures? First, nests are established in sunny spots with a southern exposure. The well-insulated nests passively absorb radiant heat during the day and store it under shade and after nightfall. Secondly, ants bask on the nest surface and cycle in and out of the nest to transfer their raised body heat to the interior. Thirdly, the thatch generates heat as it decomposes. Ants regulate the rate of composting by exchanging new and old material from the top of the nest to underground passages. During summer, the ants weave an open thatch to allow air to circulate. During winter, they tightly weave the thatch surface and plaster it with soil material, leaving only a few entrances.

You may have noticed swarms of flying ants of other species on warm days in early fall. The new queens in these swarms mate, drop to the ground, shed their wings, and find a place in the ground to hunker down for the winter with prospects of laying eggs and starting a new colony the following spring. Thatch ants, however, have a different strategy. New queens and drones spend the first part of winter in their toasty thatch suites, tended by their ladies-in-waiting (workers), and wait until spring to emerge full of vigor and ready to fly off to find a mate. If you visit a nest late on a sunny morning in March or April, you may witness the grand sendoff, with new queens (big red



Thatch Ants at Lanphere Dunes, February 2019. Photo source: David Mast.



Thatch Ants. Photo Credit: David Mast.

heads) and drones (small black heads) climbing to the tips of grass stems and launching themselves into the air as the workers swarm over the nest below. Once fertilized, a new queen is at the height of her powers to start a colony at the beginning of the season of plenty. Some new queens return home and serve in reserve in case the reigning queen dies, or march off with a cadre of workers to start another colony and a new nest. Both colonies will share territory and remain compatible, even after the new queen produces her own offspring. Queens typically live for about a decade, and nests can persist throughout multiple generations of queens. With so much capital invested in building a big nest, this makes ecological sense.

Thatch ants, like other ants, are major players in their ecosystem. As generalists targeting high-energy food sources, they prey on and scavenge other arthropods. They also tend aphids who suck nutritious fluids from plants and pass it through to ants as "honey dew." In exchange, the ants ward off predators and may keep dairy herds of aphids in their nest during winter.

On the other side of the coin, notable predators of thatch ants are flickers and bears. Flickers can tolerate the caustic formic acid that ants use in their defense and commonly feed on them by excavating a hole on the side of a nest and wait for the ants to swarm out for the attack. More wholesale and sometimes lethal destruction is caused by hungry bears emerging from hibernation in early spring to target nests right when they are loaded with eggs, larvae, and reproductives.

Thatch ant nests are not that hard to find. Ideal habitats for this fascinating species are coastal grasslands bordered by conifers and shrubs. An effective way to locate a nest is to find a column of thatch ants crossing a trail and trace it back to their nest, which may be as far as 100 feet away. Take the time to look deeper into the world of small creatures, and you will be rewarded with wonder and beauty.



GET ON BOARD FOR THE CLIMATE Everybody Say OHM

Martha Walden, 350 Humboldt

Some friends of mine have a curious custom. A few times a month, usually in the evening, they turn off the power to their house. Everything goes dark and quiet. They break out two small solar lamps and read for the next hour. When I found out about this, I assumed that it was a ritual they'd devised as a conscious effort to step outside the energy addiction of our modern lives. My admiration did not dim when I found out that they actually get paid for the electricity they don't use during that hour.

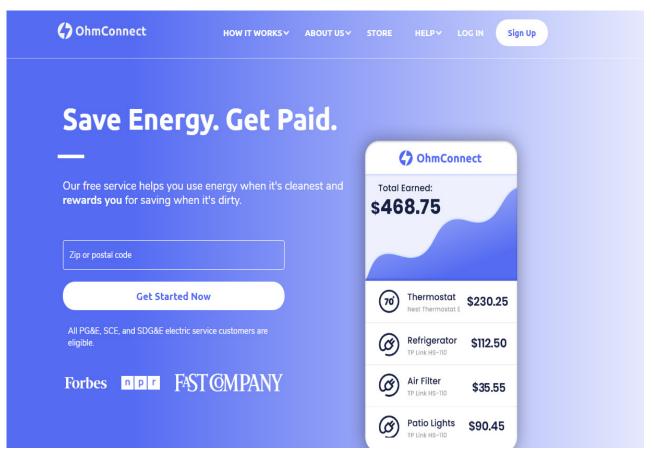
You too could get paid for not using electricity. You wouldn't have to turn off your whole house -- maybe just turn off the electronics and a few lights. But the more you reduce your typical usage for that assigned hour, the more money you make through a program called OhmConnect.

The challenge faced by utilities and grid operators is to furnish extra energy during times of peak power usage. Typically, peaker power plants are fired up to dispatch enough energy for everybody. Unfortunately, they produce the most carbon-intensive energy and the most expensive energy. So expensive, in fact, that utilities are willing to pay people to not use energy in order to minimize the need for peaker power.

You get thousands of people cutting back on their consumption by even just a little, and it really adds up. The reductions are bundled and sold back to the grid. From the point of view of the utilities, energy not used is as good as energy produced. The significant financial savings are passed from the utilities through OhmConnect to the participants.

OhmConnect is an updated version of the "demand response" strategy devised by utilities decades ago. Typically, it was factories and other commercial buildings that agreed to reduce their electricity load when notified by the utility that a grid overload was about to occur.

This more modern version is made possible by smart meters. That's why OhmConnect is available only to consumers who live in places where smart meter data is easily accessible: California, Texas(!), Toronto. Communication tools such as email or texting are also necessary. If you sign up for OhmConnect, you will receive a notification via text or email inviting you to

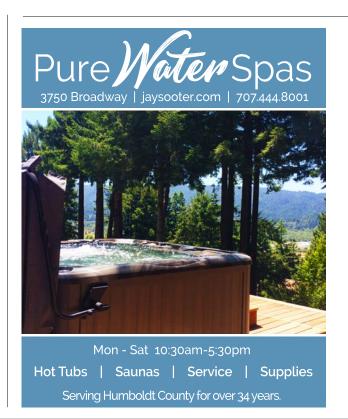


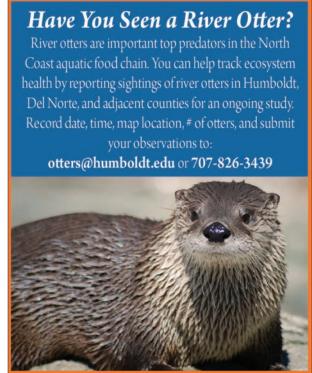
www.ohmconnect.com homepage. Signup for their free service that helps you use energy when it's cleanest and rewards you for saving when it's dirty. All PG&E, SCE, and SDG&E electric service customers are eligible.

reduce your usage during a certain hour. Your targeted reduction is based on the average amount of electricity you usually use during that time span. The price of the energy you save varies according to time and location, so earnings vary as well. (\$100 to \$300 per month is average.)

You can find out more about how it works at

ohmconnect.com. You receive a \$10 bonus just by signing up. Also, if you refer someone, you get a \$20 bonus. So if you decide to sign up, and you'd like to support 350 Humboldt's climate activism, you can give OhmConnect this link: **ohm.co/dwchandl** and that will get the bonus to us. Thank you!







Michael D. Pulliam

REGENERATIVE FARMING TO FIGHT CLIMATE CHANGE

Scientists, farmers, the USDA, and President Biden are all rallying around an idea that can pull tons of atmospheric carbon into the ground: Regenerative Farming. The Nature Conservancy has released a large study showing that no-till farming paired with the off-season planting of cover crops and nutrient-dense foods (like root vegetables) could sequester as much as 10% of the world's carbon footprint.

President Biden stated that his climate change policies aim to make "American agriculture the first in the world to achieve net-zero emissions," while creating "new sources of income for farmers in the process by paying farmers to put their land in conservation, [and] plant cover crops that use the soil to capture carbon."

In early 2020, a farmer named Marylander Trey Hill was the first to benefit from this vision. A privately run farmer-focused marketplace paid Hill \$115,000 for his use of regenerative farming practices, which sequestered over 8,000 tons of atmospheric carbon in the soil. If farmers across the globe adopted similar regenerative practices, some experts estimate this could capture a sizable percentage of the world's carbon emissions. Deborah Bassio, a soils scientist at The Nature Conservancy, estimated that if soil was protected and rejuvenated globally we could expect to see nearly 10% of the carbon dioxide drawdown necessary to avert near-term climate catastrophe.

Sources: Good News Network, Washington Post, Nature.org

REDWOOD COAST ENERGY AUTHORITY BOOSTS BUYING POWER

Community Choice Aggregations (CCAs) are programs that allow diverse energy consumers more collective control over where their power comes from; most CCAs can deliver lower prices and greener energy than typical electrical utilities suppliers. A group of CCAs along California's Northern and Central coasts (which includes the Redwood Coast Energy Authority of Humboldt County) have banded together into a Joint Powers Authority (JPA) called "California Community

Power." As a JPA, this community of communities can combine their purchasing power to help each region access any new, cost-effective, clean, and reliable energy sources that may help advance local and state climate policy goals.

According to the Redwood Coast Energy Authority, "This [JPA] structure will give us real buying power - we'll be one of the biggest buyers of power in the country.... we'll be leading the way to achieving California's clean energy goals."

Many CCAs already set up their communities to meet or exceed state requirements for renewable resources; some have gone as far as to aim for 100% renewable energy 15 years ahead of schedule. And numerous California CCAs are doing this while lowering their customers' utility bills, developing new wind and solar power projects, and innovating new energy programs.

Source: Solar Power World, RCEA Facebook

SEABIRDS SAVED WITH SIMPLE FISHERIES SOLUTION

An international coalition of conservationists have found a surprisingly simple method for saving the lives of tens of thousands of seabirds, including some endangered albatross species. The solution: tie colorful streamers on boats and longline fisheries equipment.

The Royal Society for the Protection of Birds teamed up with BirdLife International to establish the Albatross Task Force (ATF) in South America and southern Africa. Their goal was to prevent endangered seabird species from being drawn in to trawling and longline fisheries equipment, where they are easily tangled and caught. Bycatch (a fishing term that describes animals unintentionally caught in fishing gear) in Namibia is responsible for the deaths of a staggering 30,000 seabirds a year.

Once laws were passed that require fishing vessels to attach bright streamers, deaths of seabirds including albatross dropped by 98%, according to a study published in *Biological Conservation*. The color and motion of the streamers deters birds from pilfering the nets and hooks.

Samantha Matjila at Namibia ATF and Namibia Nature Foundation said, "It's truly wonderful to see bycatch drop by such a huge amount in Namibia. Our waters are crucial for many globally threatened seabirds – to think that our collaborative efforts with all the vessels and the fishery managers has resulted in more than 22,000 birds being saved every year is something special."

Sources: Good News Network, EcoMagazine

PUBLIC UPRISING HALTS ROCKY MOUNTAIN COAL MINING

In Alberta, Canada, a government decision to quietly repeal mining restrictions inspired a massive public outcry that succeeded in preserving protection laws. Tens of thousands of Albertans—country

music stars, conservationists, First Nations people, ranchers, and Canadians from all walks of life—came together to oppose the legal rollback that would allow mountaintop-removal mining in the Rocky Mountains. The public resistance lasted almost nine months, and included social media campaigns, petitions, and print media scrutiny.

The eastern Rocky Mountains are a very significant region of Alberta. They contain deposits of coal useful in steelmaking, as well as habitats for some threatened wildlife species, drinking water sources, lands important to First Nations communities, popular recreation destinations, and long-held ranch lands. In 1976, the government designated much of this region as Category 2, unavailable for mining development; this labeling was the subject of the repeal that caused so much public pushback.

Sonya Savage, provincial Minister of Energy, said, "We admit we didn't get this one right. We're not perfect and Albertans sure let us know that." She later announced the official decision, saying, "No mountaintop removal will be permitted... and all future coal exploration approvals on Category 2 lands will be prohibited."

Sources: Good News Network, The Narwhal

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TRIBE IN PANAMA REGAINS 400,000 ACRES OF ANCESTRAL TERRITORY

In a historic court ruling, the Naso Kingdom of northwestern Panama has regained stewardship and sovereign rights over some 400,000 acres of their ancestral land. The ruling concludes decades of struggle (beginning in the 1970s and '80s) between the Naso people and the government of Panama, as well as ranchers and international interests like the palm oil industry. Included in the 400,000 acres of traditionally Naso territory are two national preserves, one of which UNESCO named a World Heritage Site in 1990.

King Reynaldo Santana, leader of the Naso (and the last monarch in the Western Hemisphere), said the court ruling was "an act of justice that will restore tranquillity and allow the land to flourish again.... We will be able to continue what we know best and what our culture and way of life represents; taking care of our mother earth, conserving a majestic forest, and protecting the country and the planet from the effects of climate change."

With the Naso Kingdom back in control of the region, cattle ranchers and transnational corporations will have a much harder time pursuing their interests in these protected areas. The Naso also plan to prevent further crises for local wildlife such as endangered jaguars, peccaries, and harpy eagles.

Sources: Happy Broadcast, Uspire, NACLA.org



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Earth Day Quiz

HOW KNOWLEDGEABLE ARE YOU ABOUT EARTH DAY? FIND OUT!

Which year did the first Earth Day take place?

a. 1962b. 1970c. 1972d. 1990

Which day is Earth Day?
a. April 22 c. August 12

b. December 21 d. October 31

How many Americans participated in the first Earth Day?

a. 100,000b. 1 Milliond. 100 Million

- Which group was the largest contributor to the success of the first Earth Day?
 - a. The Green Party
 - b. United Auto Workers Labor Union
 - c. Sierra Club
 - d. Young Democrats of America
- Which book helped make environmental issues part of the public consciousness in the U.S.?
 - a. The Lorax by Dr. Seuss
 - b. The Omnivore's Dilemma by Michael Pollan
 - c. Silent Spring by Rachel Carson
 - d. Population Bomb by Paul Ehrlich
- True or False: Throughout its history, Earth Day has only been supported by Democrats.

 a. True b. False

What was the slogan for the first Earth Day poster?

- a. "Every Day is Earth Day"
- b. "Save the Planet"
- c. "Reduce, Reuse, Recycle"
- d. "We Have Met the Enemy and He is Us"
- Which environmental disaster was a catalyst for the creation of Earth Day?
 - a. 1969 Santa Barbara oil spill
 - b. 1969 Cuyahoga River fire
 - c. 1997 Great Pacific Garbage Patch discovery
 - d. 2010 Deepwater Horizon oil spill
- Which acts were passed the same year the EPA was created in 1970?
 - a. Clean Air Act
 - b. Clean Water Act
 - c. Endangered Species Act
 - d. All of the above
- True or False: In 2016, the Paris
 Agreement was signed on Earth
 Day.
 - a. True
- b. False
- True or False: Earth Day is the one and only day during the year that you should care about the environment and act to protect it.

 a. True b. False

Sources: Earthday.org, Earth Day Wikipedia

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Answer Key

1.B 2.A 3.C 4.B 5.C 6.B 7.D 8.A 9.D 10.A 11.B

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