

ECO NEWS



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THE SOURCE OF LIFE OR A RESOURCE FOR LIFE?

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HOW TO RIDE THE BUS | TAX TIME: HONOR TAXES | FOCUS ON HOUSING | PROJECT REBOUND | ACTIVISM 101

A SUSTAINABLE DEATH | WILD FOODS | GRAY WOLVES REPRIEVE | TRASH-A-THON 2022

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Dear EcoNews



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.

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Bouquets



Sincere Gratitude To:

A special bouquet of native plants to Anita Gilbride-Read for her many years of volunteering at the Northcoast Environmental Center (NEC). Anita assembled all of our bills, timesheets, cash expenses & income, coded them all for our Quickbooks, listed them appropriately on our paperwork, made our banking deposits and got everything to our book keeper for processing. Anita first started helping out regularly in the summer of 2015 when NEC Treasurer Chris Beresford asked her to fill in while Chris was off to Alaska for 3 months. When Chris returned, she asked Anita if she could continue in this role. Anita said, "yes". Thank you Anita so very much for your many years of dedicated volunteerism at the NEC.

GREETINGS FROM THE

- NORTHCOAST ENVIRONMENTAL CENTER -

The mission of EcoNews is to inform and educate the public on environmental issues around the world, state and bioregion. Many of these issues are complex and have varying levels of support throughout the environmental community. Our goal is to provide a platform to explore, discuss and debate these topics in order to better understand their nuances. The ideas



expressed in EcoNews do not necessarily reflect the positions of the NEC or its member groups. We appreciate and welcome alternative points of view.

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ECONEWS

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THE IDEAS AND VIEWS EXPRESSED IN ECONEWS ARE NOT NECESSARILY THOSE OF THE NORTHCOAST ENVIRONMENTAL CENTER

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NEWS FROM THE CENTER

Larry Glass, NEC Board President
Caroline Griffith, NEC Executive Director

Nordic Aquafarms

We've submitted comments, along with a coalition of allies, on the massive Draft Environmental Impact Report (DEIR) compiled by Nordic Aquafarms to support its multi-million dollar dry-land fish farm project. While the documentation is pretty thorough, it's the conclusions that there will be no significant impacts from the ocean discharge or the massive amount of power being used (estimated to be as much as the cities of Eureka and Fortuna combined) that give us, and our allies at Coalition for Responsible Transportation Priorities, Humboldt Surfrider Foundation, 350 Humboldt (local climate action group), Humboldt Baykeeper, EPIC, Save California Salmon, Friends of the Eel River, and Sierra Club cause for concern.

Many of us remain unconvinced that this will have no significant impact on the ocean and the life that depends on it. The ambient water quality data used to come to this conclusion was taken from a site roughly three miles from the discharge pipe, rather than at the site of discharge. We are asking that Nordic conduct modeling of ambient water quality using data from the mixing zone near the Redwood Marine Terminal II diffuser instead of the data taken from Humboldt Bay (approximately 3.5 miles south-southeast of the discharge point), and that baseline monitoring and continuous monitoring of the effluent be performed by experts and compared to an established threshold which would trigger protective actions. It may very well be that this discharge will have no impact, but we don't have enough information to determine that at this point and we'd like to see further study and requirements in place for adaptive management.

Continued Rise of Anti-Science Emotionalism

As the pandemic drags on and on, and the public gets increasingly weary of it, we've noticed the continued rise of the bully, anti-scientist. This attack on intellectualism and anyone who is "other" is at the root of authoritarian movements. From the denial of accepted science around vaccines and the climate, to the attacks on a woman's right to choose, immigrants' rights and the rights of transgender people, we see many signs of a rising neo-fascism. A powerful antidote to this is coming together with all of your fellow human beings and standing in solidarity to fight this ignorance. These issues might not seem related, but we see a direct connection and a common enemy. Besides, it feels good to come together and make new friends and work towards a better way of being. This is why we are working to highlight other movements and activists who are engaged in this struggle locally; we want to make the world smaller and the movement larger.

One connection that we see locally that might not be apparent to everyone, is the connection between housing and the environment. Housing is a human right and we can't control the fact that this place that we love is also appealing to folks who want to move here. So, it's our responsibility to make sure that the housing that is built in our communities is climate friendly, safe, and close to population centers where people work and shop. There are numerous projects in Humboldt (see page 5) that we are supporting because they would build much needed units that, because they are infill development, prevent building in forest or agricultural land and will reduce emissions because they reduce the need to drive.

Forest Service Planning Process

Each National Forest is supposed to come up with a plan for management every 15 or 20 years. The five forests in our region have been delaying this process for the last few years and have announced that it will be at least March of 2023 before they start working on a plan. This is concerning to local forest activists because the U.S. Forest Service has received \$5 billion from the Biden administration's Infrastructure Bill. For many years we've been concerned about the Forest Service having plans with no money to implement them. Now we're even more concerned about the Forest Service having a big pot of money and no current plans. Under the Trump administration, the National Environmental Policy Act (NEPA) process was weakened and now projects can be implemented with less stringent public review. Our fear is that they could come up with projects under the name of "fire prevention" that could result in extensive logging. We'll have to be monitoring this very closely in the coming months.

Activism Workshops

With everything that's going on in the local environmental movement, it can be hard for young activists to know where to plug in and how to get started. We see part of the role of the NEC as being an incubator for activism, so we are excited to be expanding our Activate program into monthly workshops for folks (especially young folks) who are new to organizing and movement building. Our first one-hour workshop will be Tuesday, March 29 at 6 p.m. on Zoom. Visit yournec.org/activate for details and to register.

New Interns!

We could not be more excited about our Spring 2022 interns! Stay tuned in upcoming EcoNews for articles from our Journalism Interns, Raven and Sabriyya! We will also have updates from Monica, our Outdoor Justice intern who is organizing tours to get folks out exploring our ecosystems, and Cassidy, our Local Policy intern who is exploring the world of public meetings and local policy.



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- TO THE TEAM -

CARLREY ARROYO

Hello to all EcoNews readers. My name is Carlrey Arroyo. I am Xicanx with Yoeme roots. I grew up in Southern California, and have been a guest on Wiyot land for the last 8 ½ years. I am a 2017 alum from Cal Poly Humboldt where I received my B.A. in Environmental Studies with an emphasis in community organizing. In my time there, I attained minors in Economics and Philosophy of Ethics and Values. I have organized locally around social and environmental justice issues with different organizations and groups as both a student and community member. Additionally, I have 6 years of non-profit experience, ranging from program coordination to donor development.



Food Sovereignty is what I am most passionate about. I have been building my skills as a farmer for the last 5 years. I have worked at various local organic farms, organized Sanctuary gardens throughout Humboldt aimed for Indigenous migrant community and currently co-manage a QTBIPOC mini-farm called Spoonhouse Gardens.

I am inspired and motivated by Indigenous and BIPOC communities that continue to protect land and water at all costs against extractive and pollutant industries. I am responsible to my family, nibblings and future kin in the fight to ensure they have access to water, air, seeds, soil and a biodiverse environment free from oppression. I am accountable to the community when called upon to show up and act for our collective liberation.

Joining the NEC team as it enters its 51st year is exciting. I look forward to supporting the administrative functions of the organization while offering my perspective and ideas to the team as we move towards the next 50 crucial years for action in protection of Mother Earth and our communities.



CAL POLY HUMBOLDT CLUB HIGHLIGHT

BICYCLE LEARNING CENTER

Adam, BLC Instructor & Mechanic

The Bicycle Learning Center (BLC) of Cal Poly Humboldt is here for students learning how to maintain their bikes. We aim to keep more bikes on the road as an alternative to more polluting forms of travel. Students may come to the BLC with a wide range of bike knowledge and we are happy to help them all. We work closely with students to cover common repairs like a flat tire or dig into bizarre issues with shifting gears. The best part is that students will do the repairs themselves when possible, and parts are free to students if we have them available.



RENEWABLE ENERGY STUDENT UNION

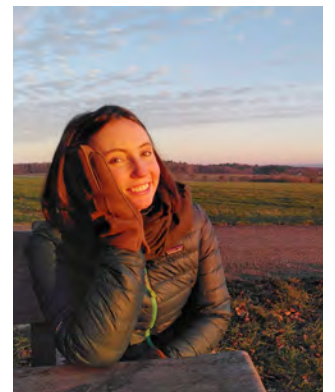
The Renewable Energy Student Union (RESU) is an on-campus club in the Environmental Resources Engineering (ERE) Department at Cal Poly Humboldt. The club strives to provide an inclusive environment for students to learn about renewable energy, and to create a place of community. RESU participates in ERE club events and hosts its own events such as field trips to local microgrids. The club also maintains the Solar Radiation Monitoring Station on the campus library rooftop, which sends data to the National Renewable Energy Laboratory database.



- TO THE TEAM -

ELENA BILHEIMER

Elena Bilheimer graduated in winter of 2021 with a degree in Environmental Studies and a minor in journalism from Cal Poly Humboldt. In her studies she mainly focused on the importance of incorporating social justice with environmental activism to work towards creating a more liberated and sustainable world. The environmental studies program at Cal Poly Humboldt was instrumental in shaping how she approaches environmental problems from an intersectional perspective that views humans and nature as intimately interconnected and inseparable. Her experience as the Media Production Fellow for the program helped develop her passion for graphic design and media. She is especially interested in learning more about how art and writing can be used as tangible tools to promote activism.



Her other passions include being outside, camping, gardening, reading, design, and cooking. The best recipe she has made recently was giant crinkled chocolate chip cookies from The New York Times. She is loving that she has more time to enjoy books and other journalists' writing now that she isn't so overwhelmed by homework. Her favorite place in Humboldt is the hike to Strawberry Rock to enjoy the expansive views and connect with the North Coast flora and fauna.

Since graduating, Elena has transitioned from being the EcoNews Journalism Intern to the EcoNews Journalist. Her favorite part of the job is getting to talk to people in the community who inspire her and are doing amazing work for the earth and its inhabitants. She wants to continue to develop her interview skills so as to better communicate local stories and voices to the NEC community. Elena loves being part of the NEC team and contributing to such an important Humboldt organization!

Dear EcoNews

Dear EcoNews,

I have always enjoyed taking a nice stroll at the Arcata Marsh and Wildlife Sanctuary, as it is such a peaceful and unique place. I know that the Marsh also serves as a wastewater treatment facility, but I don't understand how it functions or why the birds are able to live safely amidst the treatment water.

How exactly does this process work and could this be implemented in other coastal locations?

-Puzzled Pedestrian

Dear Puzzled Pedestrian,

The 307-acre Arcata Marsh is indeed a jewel among Humboldt Bay's constructed wetlands. It combines beautiful trails with habitat for native plants and animals, and is an inviting place for over 300 species of migratory and resident birds. It is also a key component in a hard-won, environmentally sound wastewater treatment system. The innovative engineering is used in other communities along both coasts, on the Great Lakes, and in other countries.

Here, wastewater treatment occurs in four general stages: conventional processing, oxidation ponds, treatment wetlands, and enhancement wetlands.

Arcata's sewers deliver wastewater to the plant on south G Street, where it goes into the headworks, like other conventional systems. It is first screened to remove sand, sticks and other debris. Next, liquids (effluent) are separated from solids (sludge). Sludge is digested, dried and composted.

Subsequent steps are where the wastewater plant's innovation occurs. Now clarified, the liquid (primary-treated water) is pumped into a series of oxidation ponds, where algae creates oxygen which bacteria and other microorganisms use to break down the organic compounds found in human waste. At the bottoms of these ponds anaerobic bacteria break down whatever harmful components remain. The water is not toxic. Plants, aquatic insect larvae, and other food can be plentiful in the ponds. It's an inviting buffet for birds.

Now organisms that oxidized the water must be removed. The secondary-treated water is pumped into treatment wetlands. The plants in the six treatment marshes--including the ubiquitous cattails--shade these ponds so that

algae can't grow. The bacteria that live among the marsh plants feed on the dying organisms, cleaning this water.

In order to kill any remaining pathogens, harmful bacteria, or viruses, the water is returned to the plant for chlorine treatments, followed by sulfur dioxide treatments to remove chlorine. A new ultraviolet light disinfection system will replace the chlorine system in the next few years, thereby ridding the system of any chemical agents.

Now the water moves to the enhancement wetlands, where nutrients and suspended solids sink to the bottom. Currently this water travels back to the plant for one more round of chlorine and sulfur dioxide treatment before it is released into the bay. But once the ultraviolet system is operating, water will go directly into the bay from the enhancement marsh — one less step.

Please drop by the Arcata Marsh Interpretive Center to interact with the hands-on displays that explain the wastewater system. And keep enjoying all the peace and beauty of the marsh trails.

- Lynn Jones, Friends of the Arcata Marsh Board Member

Have You Seen a River Otter?

River otters are important top predators in the North Coast aquatic food chain. You can help track ecosystem health by reporting sightings of river otters in Humboldt, Del Norte, and adjacent counties for an ongoing study. Record date, time, map location, # of otters, and submit your observations to:

otters@humboldt.edu or 707-826-3439



THE ECONews REPORT

Recent EcoNews Reports:

What's Next for Eel River Dams?

February 12, 2022 – Friends of the Eel River discuss developments in the thrilling drama of Eel River dam removal. It's a story of injustice and opportunity: a 100-year-old water diversion that takes from one watershed to give to another, and the chance to correct the harms by returning salmon and steelhead to excellent cold-water habitat locked behind the dams.



Talking Tough, With the Huff

February 5, 2022 – Congressman Jared Huffman joins Gang Green for a fun conversation about his legislative priorities for 2022, the prospect of the Build Back Better agenda, voting rights legislation currently stalled in the Senate, and his thoughts on California's legislative redistricting.

How Can Nature Teach Us to be Better Humans

January 22, 2022 – Naturalist and best-selling nature writer Gary Ferguson joins the show to talk about how nature can teach us important lessons to make us better humans. From the interconnectedness of mycorrhizae bounding trees together to how a wolf pack moves through Yellowstone, the natural world is a countless source of wonder and inspiration that can help us overcome our climate blues. For more about Gary's work and philosophy, check out his new project, Full Ecology.

Year-End Wrap Up (We Ain't Gonna Miss You, 2021)

January 15, 2022 – Join Gang Green for a review of the highlights and lowlights of 2021. Friends of the Eel River fought against the threat of a coal export facility and train line. Humboldt Baykeeper tracked mercury in commonly consumed fish. EPIC maintained the decade-long fight over the Richardson Grove Project, an attempt by Caltrans to realign portions of Highway 101 through Richardson Grove State Park, which would require cutting into the root system of nearby ancient redwoods trees.

How is Arcata Planning for Growth? Learn about the Gateway Area!

January 8, 2022 – Urban planning nerds rejoice! Humboldt's housing market has been white hot. If people are coming, how do we ensure that we have enough housing for those who are looking to join our community and for those of us who want to stick around?



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SAT @ 10AM



yournec.org/econews-report

Focus on Housing: Humboldt Struggles to Develop Enough

Tom Wheeler (EPIC) and Colin Fiske (CRTP)

Housing is an environmental issue. The failure to provide enough housing in our urban cores means that housing pressure will be relieved by converting farms and forests in suburban and rural areas. By redirecting housing development to the periphery—away from jobs, work, grocery stores, and the like—we are worsening the climate crisis by increasing travel demands.

Housing is also a human rights issue. When we fail to produce enough housing, the pain is felt primarily by those in the lower economic classes who either lose more of their paychecks to rent and commuting costs, are forced to live in suboptimal housing conditions or, in the worst cases, are driven to homelessness. Over 1,400 people in Humboldt County were unsheltered, as counted in the last “point-in-time” count in 2019. As local advocates for people experiencing homelessness will tell you, housing costs are a prime driver of homelessness locally and in California more generally.

The failure to produce sufficient housing is not just a local problem. California, as a state, has failed to produce enough housing to keep up with population growth. One of the obstacles to housing creation is the use of local government control to stop housing development. In reaction, the legislature has started to remove discretionary authority from local governments over many issues related to housing, with laws allowing for homeowners to have the right to add accessory dwelling units to their property and to subdivide their lot into small parcels that have often been prohibited under local zoning ordinances.

In Humboldt, we see a microcosm of the struggles of our larger state to produce enough housing in appropriate areas.

Eureka

In 2018, Eureka’s urban planning outlook went through a sea change, from encouraging sprawling, auto-centric development (think Broadway) to encouraging dense, infill development in its downtown core (think the multi-storied buildings of Old Town). Eureka committed to repurposing parking lots to create affordable housing and has enjoyed some success: three parking lots have been awarded to a low-income housing developer to produce 107 housing units. Eureka is also proposing to construct a transit center with associated housing.

There have also been hiccups. Each parking lot that has been up for consideration as potential housing has drawn a panoply of opposition from people opposed to conversion of parking lots to housing. In 2020, the city retreated partially from its original plans. In a deal facilitated by Redwood Capital Bank and motivated by concern over loss of parking, the city swapped three parking lots for vacant lots elsewhere in the city. This move was opposed by environmental groups because of concerns that this would construct fewer housing units and set a bad precedent of prioritizing parking over housing.

The city is at an inflection point. Because of the swap, it must redo its Housing Element, a planning document required by state law to ensure jurisdictions plan for enough future housing. Will the city stick by its plans?

Arcata

Arcata is moving in the right direction. The city has begun work on revisions to its General Plan, which will include densification of some existing neighborhoods, most explicitly the “Gateway Area,” the roughly southwest edge of the city currently dominated by light industrial uses. Because of the low land value and the proximity to downtown, the area is prime for infill housing development. Planning for the Gateway Area is currently underway and, as it stands, would allow for tall, multi-family apartment or condominium buildings which could help open up some of the single-family homes currently rented out by groups of students. Predictably, there is pushback, with all manner of arguments employed against the project. The Coalition for Responsible Transportation Priorities, Humboldt Baykeeper, the Northcoast Environmental Center and EPIC all stand in favor of reconceptualizing this neighborhood for more housing and more environmentally friendly modes of transportation.

Humboldt County

Humboldt County’s housing policy is regressive, a product of the conservative takeover of the Board of Supervisors—a takeover that was a reaction to, in part, attempts to restrict residential development in “resource” lands, like Timber Production Zone or Ag Exclusive zonings. Accordingly, the county’s planning encourages rural greenfield development through easy subdivision of large lots and scant protections for farms and forests. Developing rural estates yields higher profits for developers, who continue to pitch new cul-de-sacs into the forest, like the North McKay project, which was approved by the Planning Commission in January. Meanwhile, the County has lauded development standards for infill development with excessive parking requirements that make development impossible by, in many instances, requiring more space be devoted to parking than for housing.

McKinleyville

An alternative approach to housing development in the unincorporated county is starting to take shape in McKinleyville. Local residents have long decried the lack of any real town center or sense of place, which is the direct result of the county’s auto-oriented rules which effectively prohibit dense, infill development. Now, after decades of pressure, County planning staff and the McKinleyville Municipal Advisory Committee are finally developing more modern development standards to apply to the designated “town center” area. Draft rules proposed to date would allow denser housing and mixed-use development, create more walkable streetscapes, and reduce the amount of parking required. However, there continue to be loud voices opposing these changes in order to preserve the current sprawling character of McKinleyville, so the final outcome of the planning process is still unknown.

The way we move forward with housing policy will have a profound effect on the environment and the climate. Will we move towards dense, walkable, people-centered development or continue to develop car-centric subdivisions that encroach into forests and farmland and maintain our reliance on fossil fuels? One thing is certain: our current need for housing is high and is only going to grow. Now is the time to envision how we want our communities to look in the future and start making the changes that take us in that trajectory. Future generations of Humboldt County residents are counting on us. Sign the petition calling on local governments to build people-friendly, climate conscious housing at rccer.com/take-action.

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Project Rebound at Cal Poly Humboldt

Elena Bilheimer, *EcoNews Journalist*

Project Rebound, a program created to empower formerly incarcerated students, is now in the midst of its second year at Cal Poly Humboldt. Cal Poly Humboldt is the newest school in the Project Rebound consortium, which consists of 14 California State Universities. Over the course of the past year and a half, the organizers and coordinators of the Cal Poly Humboldt Project Rebound program have been working tirelessly to provide support for formerly incarcerated students wanting to obtain an education. While supporting formerly incarcerated students has not been a major concern of the mainstream environmental movement so far, the prison industrial complex contributes to environmental degradation in countless ways. Creating space for formerly incarcerated students to thrive in higher education is important for helping tackle many of the environmental justice concerns associated with prisons.

The Project Rebound consortium was started by a man named John Irwin who, after serving a five-year prison term, earned his Ph.D. from University of California Berkeley and went on to become a Professor of Sociology and Criminology at San Francisco State University. The program has had huge success since its inception in 1967. Since 2016, Project Rebound students system-wide have a zero percent recidivism rate, meaning that none of the students in the program have gone back to prison. This is because Project Rebound's efforts extend beyond educational support to provide resources and community from those who have inside experience. "If you don't get your basic necessities and resources, you are more likely going to keep being involved in a system," said Tony Wallin, the Program Coordinator for Cal Poly Humboldt Project Rebound.

The program at Cal Poly Humboldt was co-founded by Wallin when he was a student and unable to find the resources he needed. He got his start by creating the first Formerly Incarcerated Students Club (FISC) on campus. After a year of raising awareness about the club, he met Franklin Porter, a political science major who helped build the club's resources so that it could be accepted as part of the Project Rebound consortium in the fall of 2020. Kory Lamberts, the former Correspondence Specialist for Project Rebound, began working with the program when he was trying to find his place on campus and within the environmental studies major. Through Project Rebound, he was able to locate a

community that looked and talked more like he did while also allowing him to explore the ways in which the environmental movement often fails to address the social and environmental justice consequences of prisons.

Lamberts has focused a lot of his work around prison ecology, which deals specifically with the relationship between mass incarceration and the environment. Because the country's incarceration rate has increased around 500 percent over the past four decades, there has been a massive push to build



HSU Formerly Incarcerated Students Club artwork. Drawing by Anthony Mancera, an artist who is currently incarcerated at Lancaster State Prison and enrolled in their BA program.

prisons in environmentally compromised areas. Although prison developers often market prisons as job creators, the towns around them usually end up more environmentally and economically degraded after their construction. Considering that people of color are disproportionately represented in prisons, mass incarceration is also deeply connected to systemic racism and the ways in which these institutions have been used to maintain social inequality.

"In so many ways the prison industrial complex is a negative externality for the environment," Lamberts said. "Not to mention the freeways going through inner cities, increasing the rates of asthma for children in inner cities, which then increases the rates of truancy, which then is directly linked to the rates of arrests. So everything about the prison industrial complex is an environmental justice crisis."

Prioritizing the knowledge of those experiencing oppression is a central tenet of environmental justice, which focuses on how identity affects the way environmental benefits and burdens are distributed. These environmental burdens have historically been unequally distributed onto marginalized communities, including those in prisons. In order to break this cycle, the voices of those who have been negatively impacted need to be centered in environmental activism work. "When we look at education and who holds knowledge from a decolonized perspective, it's apparent that the people who are closest to the systemic issues are the experts," said Lamberts. Later on in the interview he stated, "I think that getting people who are currently incarcerated back into society, integrated properly back into society and given positions of power within institutions like universities, city council, and those types of roles, we're going to start to see serious change. Because then you'll have people that have been affected by the system in a serious way, and have a passion for people."

In order to ensure that those with carceral experience gain an education and a platform in order to make change, Project Rebound will continue to be a robust builder for community reentry while also working to build a bachelor's program for Pelican Bay State Prison. If you are a student at Cal Poly Humboldt and would like to become involved with this work, FISC is the ideal space for someone who wants to be an ally and advocate for prison justice. While you do not have to be formerly incarcerated to be a member of FISC, Project Rebound is reserved for those who have been incarcerated or who have been directly impacted by the carceral system to ensure that the community is always served. If you are not a student, Wallin suggests having conversations about these issues with your community or with people with opposing points of view. Project Rebound hosts a number of events throughout the semester where it brings in guests and creates panels of experts in order to help educate the community.

"What this program does is, you know, really shouts no, you have a seat at the table, you belong here," said Wallin. "That's what's really important to me, a shared sense of community. I think so long as we operate in the shadows, society places this really overhanging shame for those of us who have had any kind of system involvement. When a lot of times it's due to society not creating opportunities, and instead setting us up for failure. And this program really is a beacon of hope."

The Source of Life or a Resource for Life? Western vs. Indigenous Views Regarding the Environment

Farzad Forouhar

We all remember the stories from our childhood, in many of which there was a witch, a demon, a big bad wolf, something vile and sinister residing in the woods. This conceptualization gave the environment and nature a sense of wilderness that needed to be tamed and controlled. The anthropocentric view embodied in religious beliefs also emphasized the dominion of human beings over the earth and everything upon the earth, and the idea that they were there for humans to explore, replenish, and subdue, while the environment and nature were embodied as where the devil roams. With the advent of industrialization, the environment and nature became an almost-free unlimited resource that turned factories' wheels. In the context of the settler-colonial project in the Americas, the environment had the same conceptualization as wilderness. What William Bradford noted upon his arrival to Cape Cod on the Mayflower in 1620 shows such a view when he described what he saw as "a hideous and desolate wilderness, full of wild beasts and wild men."

Like all forms of colonialism, settler colonialism is based on domination, typically organized or supported by imperial authority. As an ongoing colonial process, settler colonialism happens through the alteration of land, species composition and ecological structure, and the relationships between human beings and their natural environment. Such processes undermined various core relationships that challenge every aspect of Indigenous communities, from their sovereignty to their mental and physical health, creating dominant narratives regarding settler colonialism's ecological dynamics that consider nature as a source of wealth and a resource. The profit motives of this view marginalizes Indigenous communities, and undermines their right to subsist.

The dominant narratives and the counternarratives within the context of the environment can also be found in the concept of ecological nationalism. This notion comprises versions of nature that are a form of national pride, which is a part of the process of legitimating and consolidating a nation. It links cultural and political aspirations with political sovereignty and identity and can include nature conservation and environmental protection. In this view, nature is a source of wealth and a commodity that can generate growth and progress in the development discourse. In this context, the erasure of the Indigenous presence in nature through violence, dispossession and land



A Western fist spilling oil (a resource) into an Indigenous palm full of water (a source of life). Digital art by Raven Marshall, EcoNews Intern. Source material: Freepik.com

alienation, exclusion and criminalization of traditional practices, and overexploitation along with forced assimilation and acculturation become necessary. This view also creates a human-nature dichotomy to mobilize the citizenry and construct new identities to form the political sovereignty of the nation-state. In the American narrative, the West was considered as the wilderness that needed to be subjugated by white settlers as if it was their destiny and responsibility, and such assumptions had a critical role in the emergence of American Democracy, the conceptualization of a new identity and citizenship, along with American nationalism and an extension of the state's political, juridical, and cultural hegemony over Indigenous people.

On the other hand, Indigenous understanding of the environment and nature is entirely different from European settlers' perception. The stories of creation among the Indigenous people are deeply embedded with the correlation between Indigenous people and their environment and nature. The creation stories are metaphors that indicate how Indigenous people see themselves as the stewards of their environment. They signify how the Indigenous people were aware of their reciprocal affiliation and their symbiotic relationship with their environment, nature, the

earth and all its inhabitants as they acknowledged the well-being, existence, and fulfillment of them, and their environment depends on mutual respect and understanding. Such a delicate and substantial understating of nature, along with the Indigenous people's subsistence livelihood, helped this land to thrive for millennia until European settlers arrived.

The notion of American wilderness is invented and has a culturally constructed nature with two constructs: the sublime and the frontier. The sublime concept is the older and more pervasive cultural construct embedded in Western culture, and the frontier is more embedded in American society and thought; however, it also has a European origin. Wilderness has been introduced to us as a cultural construction that has been produced by the frontiers and a romanticized culture of the sublime. Throughout time and by the emergence of the early environmental concerns regarding conservation or preservation and people like John Muir and Gifford Pinchot, the idea of wilderness has been changed from a place of spiritual danger and moral temptation where the devil roams into a place where one could see the face of God. What has been neglected in defining the wilderness is the erasure of the history of Indigenous communities through land dispossession, assimilation, and genocide. The two views contrast each other as the Western view sees the environment as a resource while the Indigenous view asserts a kinship, a symbiotic and reciprocal relationship with the environment, and sees the environment as the source of life.

Let's contemplate a bit more about the Indigenous environmental prospect and their biocentric view of the environment that enables them to steward the land and the environment for millennia while the Western, anthropocentric view of the environment as a resource for an extractive economy that results in ecological degradation and devastation after 200 years. The American geographer Carl Sauer put it well when he wrote that "Americans had not yet learned the difference between yield and loot."



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¿La fuente de la vida o un recurso para la vida? *Puntos de vista occidental e indígenas sobre el medio ambiente*

Farzad Forouhar

Todos recordamos las historias de nuestra infancia, en muchas de las cuales había una bruja, un demonio, un lobo feroz, algo vil y siniestro que residía en el bosque. Esta conceptualización le dio al medio ambiente y la naturaleza una sensación de desierto que necesitaba ser domesticada y controlada. La visión antropocéntrica basada en creencias religiosas también enfatizaron el dominio de los seres humanos sobre la tierra y la idea de que la tierra estaba allí para que humanos explorarán, se rellenaran y la dominaran, mientras que el medio ambiente y la naturaleza estaban encarnados como el lugar en donde el diablo vaga. Con el advenimiento de la industrialización, el medio ambiente y la naturaleza se convirtieron en un recurso ilimitado casi gratuito que hacía girar las ruedas de las fábricas. En el contexto del proyecto colonial de colonos en las Américas, el medio ambiente tenía la misma conceptualización que la naturaleza salvaje. Lo que William Bradford anotó a su llegada a Cape Cod en el Mayflower en 1620 muestra ese punto de vista cuando describió lo que vio como “un desierto espantoso y desolado, lleno de bestias salvajes y hombres salvajes”.

Como todas las formas de colonialismo, el colonialismo de colonos se basa en la dominación, típicamente organizada o apoyada por la autoridad imperial. Como proceso colonial en curso, el colonialismo de colonos ocurre a través de la alteración de la tierra, la composición de las especies y la estructura ecológica, y las relaciones entre los seres humanos y su entorno natural. Dichos procesos socavaron varias relaciones centrales que desafían todos los aspectos de los pueblos indígenas, desde su soberanía hasta su salud mental y física, creando narrativas dominantes sobre la dinámica ecológica del colonialismo de colonos que consideran a la naturaleza como una fuente de riqueza y un recurso. Los motivos de lucro de este punto de vista marginan a los pueblos indígenas y socavan su derecho a subsistir.

Las narrativas dominantes y las contra narrativas dentro del contexto del medio ambiente también se pueden encontrar en el concepto de nacionalismo ecológico. Esta noción comprende versiones de la naturaleza que son una forma de orgullo nacional, que es parte del proceso de legitimación y consolidación de una nación. Vincula las aspiraciones culturales y políticas con la soberanía política y la identidad y puede incluir la conservación de la naturaleza y la protección del medio ambiente. Desde este punto



Madre Tierra. Por Freepik.com

de vista, la naturaleza es una fuente de riqueza y una mercancía que puede generar crecimiento y progreso en el discurso del desarrollo. En este contexto, se hace necesaria la eliminación de la presencia de los pueblos indígenas en la naturaleza a través de la violencia, el despojo y la enajenación de tierras, la exclusión y criminalización de las prácticas tradicionales y la sobreexplotación junto con la asimilación y la aculturación forzada. Esta visión también crea una dicotomía humano-naturaleza para movilizar a la ciudadanía y construir nuevas identidades para formar la soberanía política del estado-nación. En la narrativa Americana, el oeste fue considerado como el desierto que los colonos blancos debían subyugar como si fuera su destino y responsabilidad, y tales suposiciones tuvieron un papel fundamental en el surgimiento de la democracia estadounidense, la conceptualización de una nueva identidad y ciudadanía, junto con el nacionalismo estadounidense y una extensión de la hegemonía política, jurídica y cultural del estado sobre los pueblos indígenas.

Por otro lado, la comprensión de los pueblos indígenas del medio ambiente y la naturaleza es completamente diferente de la percepción de los colonos europeos. Las historias de la creación entre los pueblos indígenas están profundamente arraigadas en la correlación entre los pueblos indígenas y su entorno y naturaleza. Las historias de creación son metáforas que indican cómo los pueblos indígenas se ven a sí mismos como cuidadores de su medio ambiente. Significan cómo los pueblos indígenas fueron conscientes de su filiación recíproca y de su relación simbiótica con su entorno, la naturaleza, la tierra y todos sus habitantes al reconocer el bienestar, la existencia y realización de ellos y su entorno depende del respeto mutuo y entendimiento. Una subestimación tan delicada y sustancial de la naturaleza, junto con el sustento de

subsistencia de los pueblos indígenas, ayudó a esta tierra a prosperar durante milenios hasta que llegaron los colonos europeos.

La noción de desierto americano es inventada y tiene una naturaleza construida culturalmente con dos constructos: lo sublime y la frontera. El concepto sublime es la construcción cultural más antigua y más generalizada incrustada en la cultura del oeste, y la frontera está más incrustada en la sociedad y el pensamiento estadounidenses; sin embargo, también tiene un origen europeo. Lo salvaje se nos ha presentado como una construcción cultural que ha sido producida por las fronteras y una cultura idealizada de lo sublime. A lo largo del tiempo y por el surgimiento de las primeras preocupaciones ambientales con respecto a la conservación o preservación y personas como John Muir y Gifford Pinchot, la idea de la naturaleza salvaje ha cambiado de un lugar de peligro espiritual y tentación moral donde el diablo deambula por un lugar donde uno podría ver el rostro de Dios. Lo que se ha descuidado al definir el desierto es el borrado de la historia de los pueblos indígenas a través del despojo de tierras, la asimilación y el genocidio. Los dos puntos de vista contrastan entre sí, ya que el punto de vista occidental ve el medio ambiente como un recurso, mientras que el punto de vista indígena afirma un parentesco, una relación simbiótica y recíproca con el medio ambiente, y ve el medio ambiente como fuente de vida.

Contemplemos un poco más sobre la perspectiva ambiental de los pueblos indígenas y su visión biocéntrica del medio ambiente que les permite administrar la tierra y el medio ambiente durante milenios, mientras que la visión antropocéntrica occidental del medio ambiente como un recurso para una economía extractiva que resulta en la degradación ecológica y devastación después de 200 años. El geógrafo estadounidense Carl Sauer lo expresó bien cuando escribió que “los estadounidenses aún no habían aprendido la diferencia entre rendimiento y botín”.



Farzad Forouhar es miembro del equipo central de Cooperación Humboldt y trabaja para la Tribu Wiyot en Eureka, California. Farzad se mudó de Irán a los Estados Unidos en 2014 y desde entonces reside en Eureka, CA. Farzad tiene una licencia de B.A. en Ciencias Políticas con énfasis en Política Global y Política Ambiental con mención en Periodismo de la Universidad Estatal de Humboldt.

What is FERC?

FERC and the Eel River Dam Removal

Elena Bilheimer, EcoNews Journalist

Recently, the Two Basin Partnership joined project owner Pacific Gas and Electric in the decision not to relicense the Potter Valley Project and its two dams on the upper Eel River. This is an opportunity for the community to ask the Federal Energy Regulatory Commission (FERC) to initiate license surrender for Eel River dams right now in order to help native fish populations as soon as possible. To learn more about Eel River dam removal, including how to send comments to FERC, go to the Friends of the Eel River website at eelriver.org.

In accordance with the Two Basin Partnership's decision, it is useful to understand what FERC is and how it functions in order to advocate for the Eel River. FERC is an independent agency within the U.S. Department of Energy, tasked with regulating the interstate transmission of electricity, natural gas, and oil, in addition to the licensing of non-federal hydropower projects. Congress granted FERC the authority to regulate these hydropower projects under the Federal Power Act (FPA) Part I in 1935.

Since then, FERC has had the power to decide who gets licenses for hydropower projects, based on the "beneficial uses" of the affected waters and lands as defined in the FPA, one of which is "the improvement and utilization of waterpower development". These licenses last for fifty years and allow dam owners to use public waters for energy generation. The Potter Valley Project was first approved in 1922 and includes the Scott Dam and Cape Horn Dam on the Eel River.

When PG&E decided to withdraw its application for the project in 2019, it created an opening for anyone who was interested in taking it over to apply for relicensing before the license expires in April of 2022. In response to PG&E's decision, the Two Basin Partnership was formed. This partnership is a consortium of five entities including California Trout, the County of Humboldt, the Mendocino County Inland Water & Power Commission, the Round Valley Indian Tribes, and Sonoma County Water Agency. Despite their efforts to take over the project, they were unable to raise the money necessary to complete the study plans that FERC would require.

Now that the Two Basin Partnership has confirmed it will not be relicensing the project, FERC must order PG&E to begin license surrender and the decommissioning process. Unfortunately, it can take decades for FERC to make decisions and implement these changes. This is concerning



Scott Dam, one of two Eel River dams. Scott Dam impounds the river to form Lake Pillsbury Reservoir. Ask FERC to initiate license surrender for Eel River Dams to begin dam removal. Photo credit: Rob Badger.

because the habitat trapped behind the Scott Dam is essential for restoring native fish populations. Alicia Hamann, Executive Director of Friends of the Eel River, explained that "License surrenders and decommissioning are still a somewhat unknown process, as there isn't a lot of precedent."

Please use the information provided by Friends of the Eel River at eelriver.org to let FERC know you strongly support surrender and decommissioning so the Eel River dams can come down and habitat restoration for native fish can begin immediately.

¿Que es FERC?

En la decisión de no volver a otorgar la licencia al Proyecto Potter Valley y sus dos represas en la parte superior del río Eel, se unió Two Basin Partnership al propietario del proyecto, Pacific Gas and Electric. Esta es una oportunidad para que la comunidad solicite a la Comisión Federal Reguladora de Energía (FERC) que inicie la entrega de la licencia para las represas del río Eel ahora mismo para avanzar rápidamente hacia la inevitable remoción de la represa. Para obtener más información sobre la eliminación de la presa del río Eel, incluido cómo enviar comentarios a la FERC, visite el sitio web de Friends of the Eel River en eelriver.org.

Aquafarm DEIR Raises Questions

Nordic AquaFarms' proposed aquaculture facility in Samoa would be the largest project in Humboldt County in decades. Based on the Draft Environmental Impact Report (DEIR), numerous significant impacts have not been fully assessed and mitigated, specifically concerning increased electricity demands, greenhouse gas emissions, and ocean discharge. To read full comments submitted by local enviro groups visit humboldt.gov/3218/Nordic-Aquafarms-Project. At full build out, the facility would use 21% of the county's energy supplies - as much as the cities of Eureka and Fortuna combined. And yet the DEIR concludes there would be no significant impacts from greenhouse gas emissions, truck traffic, bay intakes that will draw 10,000,000 gallons and an ocean discharge of 12,000,000 gallons of treated wastewater a day.

Although the wastewater would be lower in nitrogen than the effluent from the Eureka wastewater treatment plant, it would add to the existing nutrient load, while also adding warmer water with lower pH and salinity than the receiving waters. This combination has the potential to exacerbate the toxic algae blooms that have devastated the crab and clam fisheries in recent years.

We believe reasonable changes to reduce these impacts are achievable and requested the following modifications:

1. An explicit requirement in the EIR that the project will, from day one of operations, be powered solely through renewable energy.
2. The project maximizes its feasible onsite renewable energy production through more aggressive utilization of solar, including over parking areas.
3. An adaptive management provision that requires Nordic to buy locally-produced renewable power as it is commercially available.
4. Modeling of ambient water quality using data from the mixing zone near the RMT II diffuser, instead of the data taken from Humboldt Bay (approximately 3.5 miles south-southeast of the discharge point).
5. Baseline monitoring and continuous monitoring of the effluent should be performed by experts and compared to an established threshold which would trigger protective actions.

This project would be the largest of its kind, unprecedented and could greatly impact our community, coastal areas, and Humboldt Bay. As environmentalists, climate activists, and stakeholders our goal is to make sure this project undergoes the highest level of scrutiny and is as least impactful as possible. We'll keep you updated on whether our suggested modifications are implemented.

Criticism Abounds for Eel River Sustainability Plan

Elena Bilheimer, EcoNews Journalist

A recent decision made by the governing board of the Humboldt County Groundwater Sustainability Agency (essentially the Humboldt County Board of Supervisors under a different title) approved the adoption of a Groundwater Sustainability Plan (GSP) for the Eel River Valley Groundwater Basin. Although the milk industry organization Western United Dairies supports the plan, many Federal agencies and environmental organizations are concerned about the plan's effectiveness, as well as the monitoring data and modeling on which the plan is based. Now that the plan is approved, it will be sent to the Department of Water Resources where it will be submitted for public review.

This sustainability plan is required by the Sustainable Groundwater Management Act (SGMA) of 2014, which was designed to help protect groundwater resources and avoid undesirable results to beneficial users of interconnected surface waters. As part of SGMA, local agencies are required to create a GSP when a basin is considered a medium- or high-priority by the Department of Water Resources (DWR). The Eel River Basin was classified as medium-priority based on eight components that assess the population overlying the basin, the number of wells, the rate at which both are increasing, and the effect of other documented impacts. Because of local efforts to fight the medium-priority classification of the Eel River Basin, county officials had a very short timeline to collect data and create the GSP, which is supposed to lay out the plan for the basin for the next 20 years. DWR will have two years to review the plan and determine whether it fits the sustainability criteria set forth by SGMA.

In the Board of Supervisors meeting on Jan. 25, Hank Seemann, Deputy Director of Environmental Services for the Humboldt County Public Works Department, expressed confidence in the plan due to information extracted from a computer model developed by county officials. According to their data, groundwater water pumping would have to increase 100% in order to have so-called undesirable effects on the beneficial uses of interconnected surface waters. However, comments made by the California Department of Fish and Wildlife (CDFW) and other agencies on the plan's first draft were critical of the method and criteria through which this data was collected. One such comment from CDFW stated, "As the sustainable management criteria for reduction in groundwater storage does not define minimum thresholds or measurable objectives, the Department cannot evaluate whether these criteria will avoid undesirable results or avoid

significant or unreasonable conditions." This has caused many organizations to be concerned that the plan is not sufficient and will not result in sustainable management of the basin.

"They [the County] collected data in such a way that it obscures any potential impacts," said Alicia Hamann, Executive Director of Friends of the Eel River. "Instead of collecting daily surface flows and groundwater levels, they collected them on a monthly basis. So if there were any kind of relationship between pumping and surface flows, collecting data at such a low frequency obscures that connection... The relationship very well could be there, but they're just not looking hard enough to find it."

Criticism about the lack of detail in the data collection is supported by Humboldt County's decision to remove any kind of personal identifying information from people's well permits and logs, which makes it impossible to know where water is being pulled from in order to measure the impacts of groundwater pumping on surface waters. While not every groundwater basin is directly connected to surface water, the Eel River Basin is made up of interconnected surface water, meaning there is a strong relationship between the groundwater and surface water. This is significant, because many groundwater dependent ecosystems and species — such as the Chinook salmon — rely on a consistent flow of surface water that is not being continually drained by groundwater users.

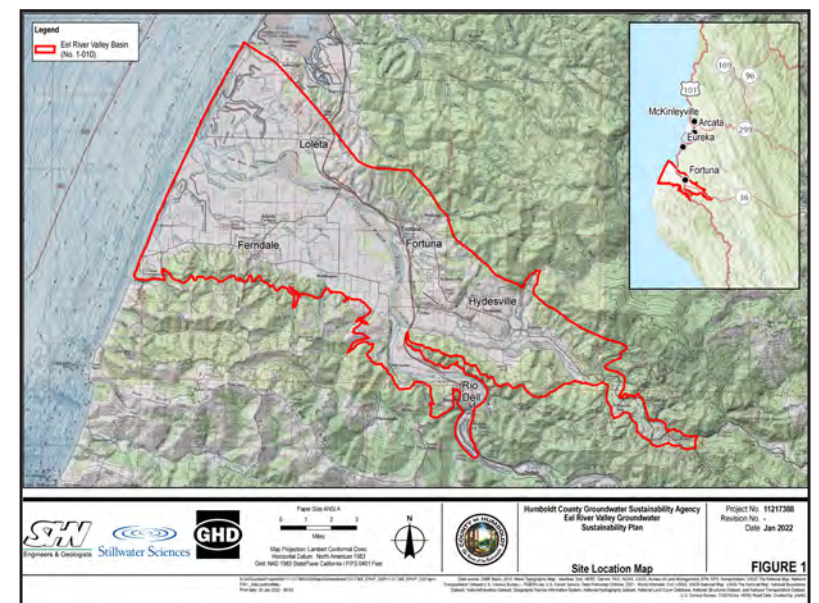
While regulations on surface waters alone are incredibly detailed, Hamann pointed out that "...if you just stick your straw in at a different angle and get it through groundwater, suddenly there's no regulations to it at all. And this is a part of why we have SGMA at all because I think people were recognizing that there's some really serious impacts from just using as much groundwater as you want, particularly when it has this connection to surface water flows."

In response to some of the criticisms, Seemann replied in the meeting that "Some people look at the lower rivers and they see conditions that are not optimal or not favorable for fish, which is true, but we did not find evidence that those conditions were directly caused by groundwater use. And so it's not the mandate of the groundwater agency to fix conditions that there's not strong evidence that they're being caused by groundwater use." While Hamann agrees that this issue is a result of an aggregate of

factors, she specified that the county has a dual responsibility to comply with SGMA while also protecting public trust values, including those of interconnected surface waters. An ideal plan would protect the natural resources and beneficial uses of surface water flows, both of which can be affected by groundwater withdrawal. This could be implemented through daily monitoring to show how much groundwater is being used, who's using it, and for what purposes. With this information, a body of evidence could be created in order to set a threshold for when surface flows are so low that they would require groundwater pumping to be limited.

Not much time was spent in this meeting to discuss how feedback from the plan's first draft was integrated into this final variation, although the County did provide a document with responses to the comments. Most of the responses by the County stated that there wasn't enough evidence of adverse impacts to warrant revisions to the GSP. However, Hamann mentioned that many of the comments were critical of the data collection methods, which is something that couldn't be corrected in the time between the end of the comment period on the draft and the due date for the final plan.

National Marine Fisheries Services (NMFS) summed up the opinions of many of the environmental agencies and organizations when it stated, "It does not appear that the draft GSP will achieve sustainable groundwater management in the Eel River Valley within the next 20 years, and groundwater use will continue to have negative effects on the viability of listed species and the greater ecosystem in general."



Eel River Basin boundary map. Includes Hydesville, Ferndale, Fortuna, Loketa, and Rio Dell. Source: Humboldt County Groundwater Sustainability Agency Eel River Valley Groundwater Sustainability Plan

A New Year in the Struggle to Save Jackson Demonstration State Forest

Matt Simmons, EPIC Legal Fellow

The struggle to save Jackson Demonstration State Forest (JDSF) from greedy industrial logging started off the new year with a bang.

First, on January 10, CAL FIRE issued its first arrests against protestors in the forest. The arrests were particularly notable because the protestors were first placed under a “citizens’ arrest” by loggers in the direction of Lear Asset Management’s Paul Trouette. Trouette has supposedly been hired by logging companies to act as a safety manager when he is in fact illegally acting as private security on public lands. EPIC issued a cease and desist order to CAL FIRE on January 18 demanding that it not allow Trouette to act as private security on this public property.

On January 19, at a Board of Forestry meeting, CAL FIRE Deputy Director of Natural Resources Matthew Reischman announced: “Due to delays in Timber Harvest Plan approvals and 2021 planned operations, no additional timber sales will be offered in 2022.” CAL FIRE was unable to approve any Timber Harvest Plans in 2021 in the wake of overwhelming public comments from EPIC and others identifying the many problems with the plans. Forest defenders have also considerably disrupted ongoing logging operations on already approved plans.

This pause on new timber sales is a relief to forest defenders, environmentalists, and the Coyote Valley Band of Pomo Indians who have been fighting to try to save the forest from unnecessary destructive logging. However, CAL FIRE has made clear that it intends to continue logging already approved Timber Harvest Plans. One CAL FIRE employee recently stated that not logging mature second growth trees in the popular Caspar 500 area would “set a precedent that we can’t have.” That’s why EPIC, the Coyote Valley Band of Pomo Indians, and forest defenders have been asking for a moratorium on all logging in the forest until a more sustainable management plan can be adopted.

On Sunday January 23 Chairman Michael Hunter of the Coyote Valley Band of Pomo Indians hosted his first

“Witness What’s Happening in our Pomo Homelands” event. The event, attended by concerned members of the public as well as representatives from EPIC and other environmental groups, was inspiring. Chairman Hunter led about 100 people from a site within JDSF that had been heavily logged in 2018 to the Gemeni Tree located within the soon to be logged Caspar 500 THP. During the walk, folks from many different organizations and backgrounds shared their thoughts and feelings about why protecting JDSF is so important.

Next, on Monday January 24, forest defenders held a rally at Camp One in JDSF. The event was to protest ongoing logging operations on the Red Tail THP and Paul Trouette’s illegal presence in the forest. EPIC and our allies submitted a letter arguing that the Red Tail THP violates JDSF’s Option A in December.

Michelle McMillan, media representative for Mama Tree Mendo, the group that planned the rally, said of the event, “Our rally was inspired by the sheer hypocrisy of hiring someone like Paul Trouette as a ‘safety officer.’ We are tired of his illegal presence in JDSF, and hope to raise awareness of his efforts to escalate tensions, his inattentiveness to safety threats, and the reality that his role on the whole is bogus. Happily, he didn’t show up for work on Monday, so instead we got to do what we do best – drink coffee, dance in the sunlight, and show the reporters in attendance the stark reality of the heinous logging operations taking place in JDSF.

Finally, on January 31 Chairman Michael Hunter of the Coyote Valley Band of Pomo Indians sent a letter to Governor Newsom requesting immediate initiation of government-to-government consultations for Tribal-State co-management of JDSF. Governor Newsom has made it his Administration’s policy to seek co-management with California Native American Tribes of state lands. Chairman Hunter believes current commercial logging-focused management of JDSF is damaging both the climate and his People’s sacred sites and cultural resources, and hopes that by initiating co-management he can change CAL FIRE’s ways.

Coyote Valley elder and long time environmental champion Priscilla Hunter stated, “As we move forward in government-

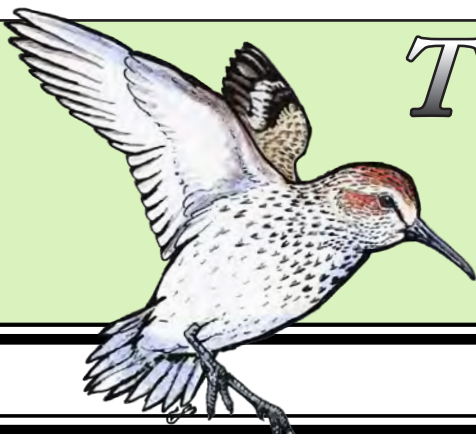
to-government consultations with the State to protect and preserve the ravaged forest lands at Jackson Demonstration State Forest we are doing so at a historic moment of reckoning for all of the past viciously cruel State policies which forced our ancestors from the lands they had gently managed for thousands of years. Our ancestors are proud of us. I am proud of my son for leading this historic effort.”

There’s a lot more planned in the campaign to Save Jackson Demonstration State Forest! Be sure to visit Savejackson.org and sign up to receive the most up-to-date information!



The Gemeni Tree which sits in the path of a proposed skid trail on the Caspar 500 THP would already have been logged but for the courageous actions of forest defenders. Signs read: Not for sale. The Birthday Tree. Please sit here. Celebrate your life while you protect mine.

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The Sandpiper

March 2022



Redwood Region Audubon Society

www.rras.org

In this Issue: CBC Highlights • Working Barn Owls • Rooftop-Nesting Shorebirds

March 18 Deadline for Student Bird Art Contest!

For the 19th year, FOAM and Redwood Region Audubon Society are co-sponsoring a Student Bird Art Contest in conjunction with the Godwit Days Spring Migration Bird Festival. An estimated \$550 in prizes will be awarded to Humboldt County students, from kindergarten through high school, who submit a drawing of one of 40 suggested species or another bird that has been sighted locally. Prizes also will be awarded for the best renditions of a bird in its natural habitat. Awards are scheduled to be presented on Saturday, April 15 starting at 11 am at the outdoor amphitheater near the Arcata Marsh Interpretive Center (AMIC). Copies of winning artwork will be shown at AMIC during May and June. A flyer with complete rules and instructions is posted on the Godwit Days website (www.godwitdays.org) or can be picked up at the Interpretive Center. Flyers have been e-mailed to all Humboldt County schools. Art may be dropped off Tuesday through Sunday between 9 am and 5 pm at the Interpretive Center, located at 569 South G Street, or mailed to Sue Leskiw, 155 Kara Lane, McKinleyville CA 95519. Entries must be received by Friday, March 18 to be considered. Questions? E-mail: sueleskiw1@gmail.com.

Godwit Days Is Back in 2022 – Part In-Person & Part Virtual

Join Us for Arcata's Spring Migration Bird Festival Friday, April 15 through Sunday, April 17, with 27 Total Sessions!

The Godwit Days Board has decided to offer a hybrid festival spanning three days: April 15, 16, and 17. We have selected the most popular trips from past years and added a couple of new ones, as well as four virtual sessions (including a keynote lecture). The event schedule is posted at www.godwitdays.org and open for reservations.

All in-person field trips will be limited to 10 registrants. Attendees must provide proof that they are fully vaccinated against COVID-19.

Watermark: Pileated Woodpecker by Xatimniim Drake, Hoopa Valley High, 2021.

RRAS Field Trips in MARCH

Sat. March 5th – 8:30-11am. Arcata Marsh, led by Drew Meyer.

Sat. March 5th – 9-11am. Join trip leader, Jude Power, for this month's **Women and Girls Birding Walk** at the Elk River Wildlife Area/Hikshari Trail. This section of Hikshari Trail runs through Elk River Wildlife Area, wanders along the shore of the Elk River estuary and then disappears into a large patch of willows, alders and pines. **For reservations and meeting location contact our Field Trip Chair, Janelle Chojnacki, at janelle.choj@gmail.com.*

Sat. March 12th – 8:30-11am. Arcata Marsh, led by our Historian, Gary Friedrichsen.

Sun. March 13th – 9-11am. Ralph Bucher will lead a walk at the Humboldt Bay Nat. Wildlife Refuge.

Sat. March 19th – 8:30-11am. Arcata Marsh, led by Larry Karsteadt.

Sat. March 19th – Beginning Birdwatching & Project FeederWatch. **Drop-in** 10-12 at the Jacoby Creek School Garden. Redwood Region Audubon Society is teaming up with Garden Coordinator, Sue Moore, to help with their FeederWatch every 3rd Saturday through April 9, 2022.. Bring binoculars! Contact Denise Seeger, at daseeger@gmail.com.

Sun. March 20th – 9-11am. Ralph Bucher will lead a walk on the Eureka Waterfront. This trail is paved and is **wheelchair accessible**.

Fri. March 25th – 4-6 pm. Moonstone Beach. Join RRAS for a stationary, guided **wildlife-viewing, and socializing event at Moonstone Beach!** Leaders Janelle Chojnacki and Andrew Orahoske will welcome folks on this outing and focus on letting the birds come to us while we enjoy the sunset. Picnic blankets and camping chairs are encouraged, as are binoculars and spotting scopes.

Sat. March 26th – Arcata Marsh, led by Michael Morris.

Sat. March 26th – 9-11am. Wigi Wetlands Volunteer Workday. Help create bird-friendly native habitat and restore a section of the bay trail behind the Bayshore Mall. We will provide tools and packaged snacks. Please bring your own water, gloves, and face mask. Please contact Jeremy Cashen at jeremy.cashen@yahoo.com or 214-605-7368.

**Contact Ralph at thebook@reninet.com for any walks he leads and all Arcata Marsh walks. *Contact Field Trip Chair, Janelle Chojnacki at janelle.choj@gmail.com for all other walks. See our website for COVID protocols.*

Please join us for the RRAS monthly virtual program:

Birds and the Burn: Friday, March, 11 at 7pm

On community-powered surveys to measure effects of fire and restoration on the birds of Bear Creek, with Dr. Sarah Rockwell

In September of 2020, multiple fires damaged or destroyed much of the streamside habitat along the Bear Creek Greenway in Jackson County, OR. The Bear Creek Greenway is a 20-mile paved path that runs through a large swath of riparian habitat in an otherwise mostly urban part of the Rogue Valley. It is an important community resource for both human recreation and wildlife habitat. Riparian vegetation is crucial for many bird species that rely on deciduous plants and nearby water to nest, survive the winter, or rest and refuel during migration. Local conservation organizations and southern Oregon birdwatchers have come together to monitor changes in the Bear Creek bird community over time, including effects of the 2020 fires. The goal of the Bear Creek Community Bird Survey is to use bird populations as indicators of watershed health, and measure whether riparian areas along Bear Creek are improving through ongoing restoration efforts or continuing to degrade from factors like urban development or climate change. Sarah Rockwell (Klamath Bird Observatory) and Nate Trimble (Rogue Valley Audubon Society), two of the survey coordinators, will talk about this community-powered effort, how the data will be used, and the results so far (including 44,000 observations submitted to eBird!).

Dr. Sarah Rockwell is a Research Biologist at Klamath Bird Observatory based in Ashland, OR. She joined KBO in 2013 after completing her Ph.D. at the University of Maryland and Smithsonian Migratory Bird Center, where she studied the ecology of the then-endangered Kirtland's Warbler in her home state of Michigan. She currently studies avian response to coniferous and riparian habitat restoration, to improve conservation and management. She also leads research on specific imperiled species, including the Oregon Vesper Sparrow and Western Purple Martin.

Nate Trimble has a Master's Degree in Wildlife Ecology from Texas State University and has worked as a field biologist and community science coordinator in southern Oregon and northern California for many bird research studies over the last 8 years, including riparian birds, Black-backed Woodpeckers, and Northern Spotted Owls. He was also on the Rogue Valley Audubon Society Board of Directors. Nate is an artist who has contributed bird and plant illustrations for multiple nature education projects, including the cover art for the Birds of Jackson County, Oregon: Distribution and Abundance booklet published by the Rogue Valley Audubon Society.



Above left: Yellow-breasted Chat. Above right: Bear Creek Greenway; both photos by Frank Lospalluto.

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Christmas Bird Count Highlights

The annual Christmas Bird Count, organized by National Audubon, is strongly supported by Redwood Region Audubon Society. Take a look at the highlights below. Thanks to all the hard work of the compilers before, during, and after their counts in late December 2021 and early January 2022.

ARCATA

The Arcata Christmas Bird Count (CBC), lucked out with a beautiful sunny day vs the more common rainy, cold count. With a great amount of effort this year and 31 participants, we were able to record 171 species! This count usually averages in the upper 160's. Thanks to the amazing birders of Humboldt County there were a few highlights staked out before the count. On count day our highlights included 6 unusual/rare species and 2 groups of uncommon birds. Probably our 2 best birds were an American Tree Sparrow (found originally by Greg Gray), and a Clay-colored Sparrow found prior to the count. Interestingly, they both were hanging out on the same road in the Arcata Bottoms.

On the east side of the circle Leah Alcyon added a new species to the count list off West End Road – a Wild Turkey. She had at least one! Not too surprising since the species seems to be expanding their range. Some goodies were found out on the remote Mad River spit. Dan Greaney made the trek up the beach to the north end of the circle, picking up the staked-out Burrowing Owl and also came across a Heermann's Gull and Glaucous Gull. The sunny day also brought ideal weather for doing a sea-watch off the North Jetty. Our best bird was probably a close fly-by Ancient Murrelet and since the ocean was rather flat, we were able to get a high count of 25 Marbled Murrelets. The ocean was giving us tough birds such as Black-legged Kittiwakes and Rhinoceros Auklet. The only other group of birds to note was



President's Column

By Gail Kenny

Our passion for all things birds can take many forms. In 2005 I saw my lifer I'iwi in the cloud forest of Kauai, one of the Hawaiian Islands. I'iwi is a honeycreeper that is descended from a finch-like ancestor that arrived on the island long ago. I hired a guide to take me into the Alakai Swamp. It required hiking in rubber boots due to the many creek crossings. Along with the I'iwi, I saw several other Hawaiian endemic birds including the Apapane.

At the time I had been quilting for several years. The I'iwi made such an impression on me I imagined someday quilting one. That day finally came recently when I created a machine applique block of the bird. See accompanying photo. As I write this, I am working on a California



Scrub Jay block. I wanted to share this to show that birding can go into various tangents, including art in the form of quilting. In my 20s I oil-painted birds, now I use fabric to create bird art. I've been visiting quilt shops specifically for fabric with birds to include in this quilt.

More conventional birding passions include *bird-athon* fundraisers/contests where teams seek to see as many birds as they can in one day. We are planning the **7th Annual Tim McKay Birdathon** fundraiser with proceeds split between Redwood Region Audubon Society and the Northcoast Environmental Center (NEC). Tim McKay was a long-time Executive Director of the NEC and an avid birder. I had the pleasure of attending field trips lead by him and knowing him socially.

This year the Birdathon is taking place between April 30th and May 7th. Teams will seek pledges from donors for a specific amount of money per species seen or a flat amount of money. There are three categories of teams: standard 24-hour big day outings, six continuous hours of birding, or for school students aged K-12 two continuous hours of birding. There will be prizes for the highest number of birds counted! Gary Friedrichsen is organizing this event for RRAS, please contact him at gary@jacobyecreek.net if you would like to join a team or donate money to support the cause.

Left: Gail's quilt of the I'iwi bird.

geese. We have missed Snow, Ross's and Greater White-fronted Geese on multiple counts in the past, but not this year! Overall, it was a fantastic day and a big thanks to everyone that helped.

You can see all the details on eBird at <https://ebird.org/tripreport/31364>.

Tony Kurz

WILLOW CREEK

We were not able to conduct the Willow Creek Christmas Bird Count this year because of weather challenges. The initially scheduled date, December 22, was rained out. Then three days before the December 29 alternate date, the area was hit by a wet snowstorm that left thousands of trees lying across roads and powerlines. Sightings of Anna's Hummingbirds just after the storm were uplifting. Despite the several inches of heavy wet snow covering everything, they could be found in small flocks buzzing around the blooming Loquat trees and around persimmon trees with bits of remaining rotting fruit.

Birgitte Elbek

CENTERVILLE

The 60th Centerville to King Salmon Christmas Bird Count was held on January 2nd, 2022. With the center of the 7.5-mile radius count circle situated in the Loleta bottomland, this count includes the lower Eel River delta, areas around Ferndale and Fortuna, Loleta, and Table Bluff, the Humboldt Bay National Wildlife Refuge, Fields Landing, and King Salmon. This year, with reasonably pleasant weather conditions in the morning shifting to not-so-pleasant windy conditions in the afternoon, 41 birders tallied 81,620 individual birds involving 170 different species. The top highlight was the discovery in the Ferndale bottom of a bank of ten Trumpeter Swans – a species never before recorded on this count and a true rarity anywhere or anytime on the north coast. Another great find, also in the Ferndale bottom, was that of a Ruff – an 'old world' shorebird only recorded once on this count previously, 35 years ago. Other highlights included a single White-faced Ibis at the Russ Ranch wetlands near Centerville, White-throated Swifts over Ferndale, a Barrow's Goldeneye in Fortuna, an overwintering Wilson's Warbler in Ferndale, Barn Swallows and Tree Swallows (both rare in winter), and an Osprey that is either a rare over-wintering bird or an

exceptionally early migrant.

Both the number of species and individual birds tallied this year are respectable but are just under the average over the last ten years. Last year, the Centerville count had the highest number of any other count in the United States for 4 species: White-tailed Kite (74); Short-billed (Mew) Gull (3,129); Canada Jay (Pacific) (28); and Nashville Warbler (4). We will have to wait until all of this year's reports are in to know how results for this count compare to other counts.

Sean McAllister

DEL NORTE

The Del Norte CBC was held on Sunday the 19th of December with light rain most of the morning and turning to heavy rain later in the day. We had 19 people including 4 that drifted down the Smith River. A total of 158 species with Long-eared Owl, a family group of Trumpeter Swans, and 2 Golden Eagles being the rarest birds.

Lucas Brug

TALL TREES

On January 5, the last day of the CBC, 14 birders participated in the 11th Tall Trees count. Begun in 2012, this count is centered on the Tall Trees Grove in Redwood National Park (RNP) and includes some ocean, the Humboldt Lagoons, Orick, a lot of Green Diamond land, and most of RNP, including the Bald Hills. Morning conditions were good in the lower elevations, with perhaps the warmest start in the history of the count, but the weather deteriorated in the afternoon; conditions were poor all day higher up. The counters recorded 10,926 individuals of 114 species, which is on the low end of average for this count. Eurasian Wigeon and Great-tailed Grackle (one each) were recorded for the first time; the grackle was undoubtedly the one found there in November. Other noteworthy species were Sooty Grouse, Sanderling, Say's Phoebe, Cedar Waxwing, Lesser Goldfinch, American Goldfinch, and White-throated Sparrow. Many thanks to all the participants as well as the people who facilitated access to areas closed to the public. We look forward to next year's count!

Ken Burton

Watermark: Cedar Waxwing by Bella Tarlton, 9th Grade, Six Rivers Charter High School, 2021.

An Interview with Ralph Bucher RRAS Membership Coordinator and Field Trip Leader Extraordinaire!

By Gary Friedrichsen

You may recognize one of our most dedicated and longest-serving field trip leaders, Ralph Bucher, from one of the local field trips he has led for Redwood Region Audubon Society (RRAS). His many, loyal field-trip participants are aware of his kind and cheerful demeanor but may not know that he spent the first twenty years of his life in China Lake, California, and worked at the Naval Weapons Center, during high school and college. Ralph also attended the University of California at Riverside as a mathematics major until he dropped out due to his beliefs on the war in Vietnam.

After doing some traveling, Ralph landed in Juneau, Alaska, where he describes getting involved with his most meaningful life's work; helping run a residential drop-in home for runaway street kids. The 1970s found Ralph living in Humboldt County and married with 2 children. He enrolled as an indentured apprentice with the Operating Engineers Local #3 as a heavy-duty repairman/welder and graduated as a journeyman. He also designed and built local residential homes.

During the 40 years he has lived in Humboldt County, Ralph and his family hiked every trail in the Trinity Alps and Marble Mountains and took many skiing vacations. In 2003 Ralph decided it was time to protect his knees, and began a new hobby, learning the birds of Northern California and Oregon. Spending a great deal

of time in the winter at Lower Klamath Lake, and other California wildlife refuges, Ralph birded his way down to the Salton Sea and the Anza Borrego desert. He also began attending RRAS guided walks at the Humboldt Bay National Wildlife Refuge (HBNWR), then led by Jude Power. It was an auspicious beginning as he took over from Jude in 2018 and has been the HBNWR guide for RRAS ever since. Ralph also restarted the Audubon Palco Marsh Walk in 2015. He credits Jude Power, David Fix, Rob Hewitt, John Hewston, and Pat Bitton for early assistance as he mastered the art of birding and hosting walks. He and Ed Schreiber have led the Christmas Bird Count (CBC), at HBNWR since 2006, and Ralph helped with the Arcata Marsh walks for several years.

Ralph can't remember exactly when he joined our chapter of the Audubon Society but believes it was soon after he started birding. He does remember when he joined our Board. While on a birding road-trip in 2006, from Tule Lake down to the Salton Sea, he received a phone call from long time Board members, Jim Clark and Chet Ogan, asking if he would consider joining the RRAS Board. He not only agreed but took on the task of distributing and retailing birding books that RRAS publishes. For the last three years Ralph has also taken on the challenge of coordinating membership – a challenging task that is much appreciated by the whole Board!

When asked what memorable events stand out during his time with RRAS, Ralph explained that much of the enjoyment he derives from leading walks, is the people. While he realizes we live in a fantastic area for birding, it's having the opportunity to meet and enjoy a

day walking with like-minded individuals that holds the most fulfillment for him. He feels most satisfaction in his role as trip leader when he can help people experience the joy of simply being with nature and appreciation for the role that wildlife plays in our lives.

You can join Ralph every second and third Sundays on his walks at the Eureka Waterfront, and HBNWR. See the first page of this newsletter for field trip information.



Above: Ralph Bucher caught on his trail cam in front of the bird sanctuary at his home.

Florida's Rooftop-Nesting Shorebirds

By Alexa DeJoannis, Florida Fish & Wildlife Conservation
Commission, and former RRAS Board President

From the grassy strip behind the condos, I pitched my eyes up to the second-floor window, dazzling in the pitiless, ultra-white sunlight exploding from the pastel stucco wall. A woman looked down, her expression curious. As I smiled, the high, piercing cries of Least Terns in flight rained down on us as the birds zoomed into the rooftop colony three stories above with fish-laden beaks. Her window faced a manmade inlet, with a seawall neatly containing a finger of the Gulf of Mexico. Behind me, a mockingbird calmly reiterated its repertoire from the top of a royal palm. I explained about the seabirds' nesting colony on her roof, and how sometimes their chicks fall off buildings.



Above: Least Terns Nesting on a Florida Rooftop, by Alexa DeJoannis.

"Oh, poor little things! Terns? I thought they were gulls, pesky birds. My car is always filthy!"

Oh, dear, I thought. A roof colony can really whitewash a building, and it is the most consistent complaint from building occupants. As Florida's idyllic beaches filled with hotels and condos, roads, eateries, and recreationalists, birdwatchers 65 years ago began to document four species of seabirds and two species of shorebirds nesting on gravel roofs. (Coastal birds from these two groups are loosely called "shorebirds" for simplicity's sake.) Every year, birdwatchers report nesting on new roofs. Nesting roofs may be several miles inland, of various size or height, but they must have loose gravel in which the birds scrape nest cups.

In Florida, about half the population of Least Terns nests on rooftops. In smaller proportions, we also see Killdeer, American Oystercatchers, Black Skimmers, and Gull-billed and Roseate Terns using rooftops. Except for the Killdeer, they're all listed as threatened or endangered by the state or the federal government. Florida's agencies partner with Audubon Florida and hundreds of volunteers to oversee stewardship, outreach, and management aimed at conserving these threatened populations on the beach and on roofs. On beaches, shorebirds and their chicks face the usual challenges: predators, human activity, vehicles, over wash, and exposure. The roofs remove mammalian predators and most human intrusion, but have seen more pressure from crows and, lately, Cooper's Hawks who eat songbirds in urban areas. And roofs offer little cover from these onslaughts, or from the higher temperatures radiating off the tar. Does this use of an unusual nesting habitat sound like one of Redwood Country's most iconic birds, who also graces the RRAS logo?

Roofs, unlike beaches, are always private property, and on top of that, are often impossible to overlook from other buildings. That makes monitoring and management of rooftop-nesters a special challenge, and underlines the continued importance of education and outreach in conservation efforts. As ever, the job of wildlife biologists must include keeping the public informed and engaged with the state of our natural resources. For more information on Florida's rooftop-nesting shorebirds and our annual reports, visit the Florida Shorebird Alliance at <https://flshorebirdalliance.org/>, or reach out with questions directly to Alexa.DeJoannis@MyFWC.com.

Barn Owls in Working Landscapes

By Jaime Carlino, M.Sc. Student, WiGGS Secretary

Johnson Habitat Ecology Lab | HSU/Cal Poly Humboldt Dept. of Wildlife

Humboldt State University's Barn Owl Research Team is an ongoing project in the Johnson Habitat Ecology Lab at Humboldt State University in Arcata, California. The Johnson lab's unifying theme of habitat ecology – how animals interact with their environment - guides our team's research on Barn Owls (*Tyto furcata*) in working landscapes, specifically wine-grape vineyards. Working landscapes include farms, rangelands, and managed forests where many of us live, work, and recreate. These working landscapes provide us with the foods and fibers used to sustain human communities and economies. They can also provide homes for wildlife, sequester carbon, filter and store water, cycle key nutrients, and offer people places of refuge and inspiration - all of which are considered “ecosystem services”. Ecosystem services refer to the benefits people obtain from ecosystems and the species that are a part of them. These ecosystem services, perhaps better thought of as environmental gifts, represent a reciprocal relationship between people and the rest of nature.

Our research team has monitored approximately 300 barn owl nest boxes across more than 60 wine-grape vineyards in Napa Valley, California since 2015. Napa Valley is one of the most well-known wine producing regions in the world. Rodents are common pests in agricultural settings, and they can dramatically decrease crop yield through herbivory. They can also impact ecosystems when constructing mounds and tunnels by way of altering vegetative composition, root structure, and soil quality. Many wine-grape vineyard owners and managers have installed barn owl nest boxes across their vineyards in hopes that the owls provide an ecosystem service in the form of rodent pest control, by consuming gophers, voles, and mice.

Napa Valley is special for much more than its wine reputation. It contains a diverse network of urban development, agriculture, and uncultivated habitats including grasslands, oak savannas, forests, riparian areas and hundreds of barn owl nest boxes. Some of the main research topics addressed by our research team include: 1) determining how barn owls chose which nest boxes to breed in given such a heterogenous landscape and so many nest boxes to choose from, 2) how surrounding habitats impact where owls hunt, 3) the potential of barn owls to control rodent populations, 4) how variation in the feathers that make up their breast plumage influences preferences in habitat, prey, and reproductive success, and 5) whether their preferences for certain nest boxes/habitats might be adaptive.

Some key results from studies emphasize the importance of conserving native, uncultivated habitats amongst agricultural lands to secure the ecosystem services barn owls provide. More specifically, barn owls prefer wooden nest boxes placed at least 3m off the ground, with more grasslands and less forested habitats surrounding the nest box. From a study using GPS telemetry, approximately 1/3rd of barn owl hunting locations were in wine-grape vineyards, and they actively selected native, uncultivated lands near vineyards. In terms of quantifying pest control services, a family of barn owls with 3 chicks can remove ~1,000 rodents in a single breeding season, and 3,500 in a year! Indeed, our rodent surveys indicate that the presence of owl nest boxes on a vineyard can significantly reduce gopher activity compared to vineyard areas without nest boxes.



Above clockwise from top: Jaime Carlino banding a barn owl nestling, by Laura Echávez; Adult female barn owl after banding, by Laura Echávez; Jaime Carlino, Samantha Chavez, and Laura Echávez prepare a nest box to trap for adult male barn owls in the evening, by Dr. Matt Johnson. All photos taken in Napa Valley, CA.

We share our research and key findings with many groups, including farmers, scientists, agencies, non-profits, etc. If you would like to learn more about our research team, email us at barnowlresearch@humboldt.edu and/or find us on Instagram (@hsubarnowls) and Facebook (Barn Owl Research HSU). Donations for our ongoing work can be made at: <https://alumni.humboldt.edu/johnson-wildlife-fund>.

Dinosaurs and DNA

By Elliott Dabill

Jack Horner, the famous paleontologist, knows how to ruin the dinosaur party mood. He says that Jurassic Park can't work because DNA falls apart within a million years, and the dinosaurs in the films are at least 66 million years old. But then, as if to reignite dino enthusiasm, Dr. Horner says that the best way to bring them back is through the DNA already here!

Researchers know that birds are dinosaurs, and chicken embryos can develop teeth while in the egg, for example, but the teeth are reabsorbed before hatching. That means that chickens have the genes for teeth which are switched off by another gene, which we can discover and allow a chicken chopper comeback. That makes teeth atavistic in chickens, or a throwback to their velociraptor days. Similarly, velociraptors had atavistic long bony tails, which no birds today have, since it was replaced by that stubby tail bump called a pygostyle, which may be embarrassing to chickens, but they aren't saying.

So, you get the idea: we can bring back a very close relative of all birds alive today by messing with the one

domesticated bird. We can do it in labs, one step at a time to arrive at the velociraptor you see on the poster. Cool, huh? Except something will go wrong.

Velociraptors were the wolves of their day and probably hunted in packs. Hunted as in rip and tear, run fast, eat things bigger than they are, tear open bellies with the killer foot-claw, etc. And we want to bring them back while two-thirds of humans in the U.S. are overweight and mostly forgot how to run away from very fast predators? Suppose the experiments are successful and everyone is in thrall with watching velociraptors fight like gladiators in a ring, what then? Wouldn't the mad scientists want to look around for more excitement? You know humans are born with tails once in a while, suggesting that we could be prehensile once again up in the trees like monkeys. But remember Lucy? Famous hominin fossil 3.2 million years old? She died falling from a tree; all her long bones were fractured. Just saying, something will go wrong.

Now that calmer voices have been heard and chickens can remain chickens, let's consider bird body parts that are already dinosaur and be satisfied. First, feathers: all

the carnivorous dinosaurs called theropods seem to have had them – even bus-sized predators like *Hutyrannus* – which they passed on to birds. What about those reptilian scaly legs? Maybe that could satisfy the need to see ancient predator skin. The three-toed footprints and three clawed hands are still there too, albeit modified in birds, but good enough. Birds, like their dino heroes, have the most sophisticated breathing mechanics on earth; air sacs help control air flow so that the lungs get more oxygen. Can't we admire their achievement and leave them alone? I could go on, but 240 million years of dinosaurs is a heritage to be proud of, even for human observers that yearn for the older versions of perfectly adequate eagles and cassowaries.

I'm glad we worked this out. Needing an armored suit and shield to get my velociraptor dinner was sounding scary. Dr. Jack, by the way, is actually working on the chicken genes mentioned above. Lock your doors.

(Ed's Note: For an interesting read on recent dinosaur finds, see this *Washington Post* article: www.washingtonpost.com/world/superbly-preserved-pterosaur-fossil-uneearthed-in-scotland/.)



Evening Programs

“Hope for a Bee, a Forest, and a People Lies in Native Plants.” Botanist, native bee expert, native plant farmer, and ethnobotanist Brian Dykstra spent last summer looking for an endangered bumble bee in the Trinity Alps, rare plants in the footprint of the August Fire, and access for native peoples to their traditional plants. He will share his journeys and the hopeful trend he found in all three. Register for this Zoom presentation on our website, and see if in-person is an option.



Madia, a native seed producer. Photo by Brian Dykstra.

Field Trips

March 27, Sunday. South Fork Trail Day Hike. Indian Warrior, fawn lilies, hounds-tongue, larkspur, baby blue eyes, etc. should be blooming along this well known trail and the road to it in Six Rivers National Forest east of Willow Creek. We will probably walk 4-5 miles out and back. Bring lunch and water for a long day; dress for the weather. Contact Carol for details: 707-822-2015, theralphs@humboldt1.com.

A Carnivorous Discovery

by Carol Ralph

When I encounter in a mountain wet ditch or meadow a compact cluster of flat leaves fanned at the bottom iris-fashion, I feel the tall, straight stem of the flower head, even if it is old. If the stem is sticky, I know this is Western False Asphodel (*Triantha occidentalis*). An observant grad student working on genetic data of plants noticed a suspicious similarity between false asphodel and carnivorous plants. Noting that false asphodel grows in wet places with known carnivorous plants and that small insects stick on these sticky stems, researchers

stuck nitrogen-isotope-labeled fruit flies onto false asphodel and found that within 2 weeks that nitrogen was in the stems, leaves, and fruits of the plant. Calculations suggested that 64% of the nitrogen in the leaves came from insects captured the previous year on the flower stem. False asphodel is truly carnivorous, presenting a new version of the sticky trap, and representing a new lineage of carnivory in the plant world.



Tiny red specks on the false asphodel stem are sticky. Photo by Dana York

Native Plants for the Garden

While the farm stand at Freshwater Farms is closed, our native plants can be bought during our volunteer work hours at the nursery (5851 Myrtle Ave., Eureka) Wednesdays, Fridays, and Sundays 10 a.m.-12:30 p.m. Cash or check only. See website.

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ZERO WASTE HUMBOLDT

Maggie Gainer, Zero Waste Humboldt Consultant

The U.S. Environmental Protection Agency is developing a series of strategies to “build a circular economy for all.” The first part of the series is the National Recycling Strategy, which identifies actions to address the U.S. municipal solid waste recycling system’s challenges.

A circular economy approach is essential to reducing greenhouse gas emissions and for ensuring communities do not bear the environmental impacts of natural resource use. A circular economy approach reduces materials use, redesigns materials to be less resource intensive, and recaptures “waste” as a resource that can serve as feedstock to manufacture new materials and products.

The five main objectives of the EPA’s National Recycling Strategy are:

- Improve markets for recycled commodities,
- Increase collection and improve materials management infrastructure,
- Reduce contamination in the recycled materials stream,

National Recycling Strategy

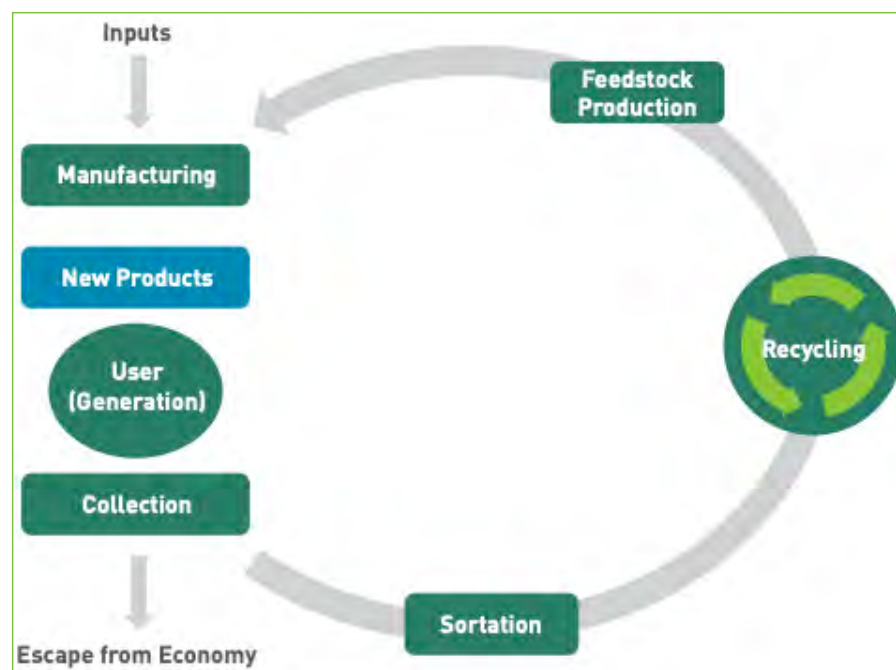
- Enhance policies and programs to support circularity,
- Standardize measurement and increase data collection.

While these are good objectives, they don’t focus on the root of the problem – the unrelenting over-production of single use products and packaging that cannot be addressed by public education and recycling collection. They are much like the objectives of recycling planning documents of 25 years ago.

Many Zero Waste and environmental organizations have expressed disappointment and the hopes that the next strategies coming from EPA will be more progressive, including prevention strategies and infrastructure for more materials reuse systems.

When previous Presidents – Reagan, Bush, and Trump – attacked the EPA with budget cuts and staff layoffs, it took time for the next administration to rebuild the agency and its strengths. We’re hoping that upcoming strategy reports in this series

will concentrate more on waste prevention and reuse solutions. Read the National Recycling Strategy at: www.epa.gov/recyclingstrategy/strategies-building-circular-economy-all



Conceptual Material Flow of the U.S. Recycling System from Reframing Recycling and the Case for a Circular Economy Approach. Source: epa.gov National Recycling Strategy



Caroline Griffith, NEC Executive Director

For those of us who are seasoned activists, it can often be easy to forget the complex paths that got us into the movement. Whether we first dipped our toes in at an anti-war protest, a march for racial justice, a city council meeting about a proposed development, or canvassing for a ballot initiative, we all got started because we saw a problem and knew we needed to be part of the solution. As I talk to young people who are interested in working for environmental and climate justice, I am reminded that the righteous anger I felt as a young activist was often mixed with a profound feeling of smallness and confusion about where to start. When looking at the big problems facing the world (income, gender, and racial inequality; extreme weather; sea-level rise; wildfires; species decline; and on and on) it can be incredibly difficult to see how one person can make a difference. How do we even start trying, especially considering we all have different skills and abilities to bring to this work?

Here at the NEC, we take our responsibility to the next generation of environmental leaders seriously, which is why we are embarking on a series of workshops to help them find an entry point for their activism. As someone who benefited immensely from the mentorship of experienced activists and organizers, I am honored to be able to step into that role. Although “activism” can mean a lot of different things, there are some basic questions to ask as you are getting started to make sure that your actions are meaningful and you aren’t just doing stuff for the sake of doing stuff.

The first question you need to ask is “What am I trying to accomplish?” This in itself can be a challenge, particularly when we are talking about big problems like the climate crisis. When the problems we face are global it can feel impossible to believe that anything we do will have an impact. As organizer and writer adrienne maree brown says, “Small is good, small is all.” Focusing on your local community and spheres of influence can help to realize your efficacy and build the skills to expand your impact. You may not be able to stop the global

fossil fuel industry, but you can influence your local City Council to adopt a Climate Action Plan that includes shifting to renewable energy sources and expanding public transit, or convince your employer to stop using single-use plastics, or persuade your university to divest in fossil fuels. Setting achievable goals is important so you don’t immediately burn out or give up in frustration. Starting small and acting locally can also help you to make connections with others who are working on the same issues so you can then combine your efforts and get even more done.

Once you’ve determined your goal, it’s time to figure out who can give you what you want. A misstep that I often see passionate activists make is placing demands on people or entities who don’t have the power to accede to those demands. None of us want to waste our precious time, so before you march into the City Council meeting to demand that they shut down the pulp mill, make sure that’s something they actually have the power to do. Power mapping is a fun exercise to figure out who your campaign should be targeting, what might motivate them to give you what you want, and who you should be allying yourself with.

What is the work that needs doing? What brings you joy? What are you good at? According to Ayana Johnson, climate activist and cofounder of the All We Can Save Project, these are the questions that should start off your inquiry into how to engage with bringing about your goal. In the Venn Diagram of these questions, the space in the middle – where everything meets – holds the key. Anyone who has engaged

in this work for extended periods can tell you that activism and working for climate justice, or any kind of justice, can be tiring. It isn’t something that you clock in and out for. When you care deeply about an issue it can be difficult to turn it off and take a break, so it’s important to take as much pleasure as possible in what you are doing. If you are an introvert who is interested in policy, leading a climate march might not be the right role for you. However, your skills as a policy wonk are an incredible asset, and focusing on what you love can lead to more long-term engagement and a life-long benefit to the climate justice movement. Likewise, if you are an artist, analyzing Environmental Impact Reports might be a good way to get frustrated and burn yourself out, but any movement needs artists. Contributing your time in a way that brings you joy and utilizes your skills will ultimately be more beneficial than trying to fit a mold of what you think an “activist” is supposed to be. That said, there is always opportunity to learn new skills and expand the parameters of what brings you joy.

We’ll be delving deeper into these concepts and exploring some helpful tools at our first interactive workshop, March 29 at 6 p.m. on Zoom. If you or someone you know are just starting out as an organizer/activist/fighter for climate justice and are looking to hone your skills, you can register at yournec.org/activate. Space is limited, so register soon.



Venn diagram created by Dr. Ayana Elizabeth Johnson, All We Can Save

Tax Time: Honor Taxes and Land Acknowledgements

Elena Bilheimer, *EcoNews Journalist*

The month of March is when most people are preparing their taxes and taking inventory of their income and expenses. While the majority only consider the taxes they need to pay to the state and federal government, this moment can also be used to recognize and pay tribute to the Indigenous peoples whose land you occupy through the creation of a land acknowledgement and the implementation of an honor tax.

Cutchá Risling Baldy, an Assistant Professor of Native American Studies at Cal Poly Humboldt, explained that, a land acknowledgement is an Indigenous practice used to build relationships with place. These acknowledgements remind Indigenous peoples of their inherent interconnectedness, and their mutual responsibility to each other and the land. When land acknowledgements first became more widespread, the intention was to make people understand that land has a history far beyond Western knowledge and the settler colonial timeframe. They were also meant to create awareness that the past has present day effects, and that the United States of America resides on unceded territory. Often, these acknowledgements have taken shape as formal statements designed to recognize the history and presence of Indigenous peoples.

Unfortunately, a lot of land acknowledgements have become used as blanket statements made by institutions or organizations to absolve themselves of any real action or reparation work. As Risling Baldy pointed out, these kinds of land acknowledgements are not for Indigenous peoples, as they are already undoubtedly aware of non-Indigenous presence on stolen land. In order to avoid making shallow acknowledgements, there needs to be tangible action steps in order to remind people there are things they can do. One tangible action step everybody can participate in is called an honor tax, sometimes called a land tax.

Honor taxes have been used in many different contexts, but they are usually a way of respecting the sovereignty of Indigenous peoples. It is a voluntary tax paid to the Indigenous tribe's territory you occupy as a way of recognizing that the society that has been created around you is a result of the theft of Indigenous land, life, wealth, and livelihood. Risling Baldy explained that Indigenous communities tend to have some of the highest poverty rates of any group of people in the United States and are more likely to have their lands targeted for environmental degradation and have violence committed against



Wiyot Ancestral Territory Boundaries. If you live in Humboldt you can participate in the Wiyot Honor Tax at honortax.org. Map source: Historic Justice Alliance. Edits by Carrie Tully.

them. Illegally taken land has created a lot of wealth for some, but has widened the disparity in natural resource management and land ownership. This is illustrated by the fact that over 90% of privately owned land is owned by white people.

“If the treaties would have been honored, if the lands would have been honored the way that they were supposed to, if Indigenous peoples were in charge of even half the land that they were supposed to be, you would already be paying taxes to them, it would already be a system that existed,” said Risling Baldy. “Knowing that, how are you going to participate in making sure that they get at least some of what they would deserve in that situation?...it’s a way of saying, ‘I acknowledge, I honor and I want to do something about this situation.’”

It is important to understand the difference between an honor tax and a gift or donation, as this tax is a consistent and voluntary demonstration of responsibility. Risling Baldy believes that these taxes could set a precedent for the type of system that could come into existence. By showing support

through taxes, it can help establish that there’s wide support for Indigenous sovereignty from multiple people and organizations. “You’ll start to see that there’s a lot more people who are ready to build those types of changes than you thought,” said Risling Baldy. “And that to me can be a really powerful thing to help keep movements going forward.”

In order to fully understand current political and environmental issues, it is necessary to understand settler colonialism as an ongoing process that relies on the continuous dispossession of Indigenous peoples from their land. Risling Baldy describes settler colonialism as an invisible box that can only be dismantled once the person inside the box realizes that the world doesn’t have to function in the limited way they had been taught. She uses the example that most people have an easier time imagining a zombie apocalypse than the end of capitalism, because the structure won’t let most people think outside the box.

“As Indigenous peoples, we are the people who existed before settler colonialism,” said Risling Baldy. “Our stories existed before settler colonialism. The ones we still have to this day are ones that are from before settler colonialism...So learning with us, and from us, just opens you up to being able to see beyond and into the next world, what the world could actually be, what it could look like.”

While land acknowledgements and honor taxes are important, Risling Baldy believes that the first step should actually be giving land back to Indigenous communities. There have been many studies showing that Indigenous lands are the ones that are managed well and have the highest biodiversity. “Let’s always keep Land Back as the thing we’re doing,” said Risling Baldy. “I think that the reason being, it’s good for people to give land back. Because it’s good for the Earth to have land returned to Indigenous peoples.” She specifies that if you are a person who is going to pay an honor tax, it is important that you also be the person asking everyone how they are working to return land.

To continue to educate yourself about these issues, sign up for a Native American Studies course at Cal Poly Humboldt or watch their YouTube videos, attend the Department’s online speaker series, or show up for their events. If you are in Humboldt, you can participate in the Wiyot Honor Tax www.honortax.org. If there is no honor tax system in your area, there are always Indigenous organizations you can give to. Even small donations can make a real impact.

Gray Wolves' Reprieve

Dan Sealy, NEC Legislative Analyst

On February 10, 2022, U.S. District Judge Jeffrey White of Oakland, California restored federal protections to gray wolves across much of the U.S. White's ruling reverses a 2020 decision by the U.S. Fish and Wildlife Service (USFWS) to delist wolves from the Endangered Species Act (ESA).

Included in the list of wildlife conservation organizations represented in the lawsuit challenging the delisting of the gray wolf were local organizations including the Environmental Protection Information Center (EPIC), Klamath-Siskiyou Wildlands Center, and Klamath Forest Alliance as well as WildEarth Guardians, Western Watersheds Project, Cascadia Wildlands, The Lands Council, Wildlands Network, and Kettle Range Conservation Group, represented by the Western Environmental Law Center.

Judge White wrote that the USFWS failed to fully consider the species-wide recovery of gray wolves, giving too much emphasis on recovered populations in the Northern Rockies and Midwest. In addition, White wrote in his opinion that the agency had neglected the recovery of "West Coast Wolves" in California, Oregon, and Washington. His decision immediately restored federal protections to wolves in the Midwest and parts of the West. This case applies to wolves in the Northern Rockies, including Idaho, Montana, and Wyoming, as well as portions of adjacent states. Those wolf populations were delisted by Congress in 2011.

Restored Endangered Species Act protections for the gray wolf come after they were eliminated by the Trump administration in 2020. The ruling orders the USFWS to resume recovery efforts for the imperiled species and redesignates the gray wolf as a species threatened with extinction in the lower 48 states with the exception of the Northern Rockies population, for which wolf protections were removed by Congress in 2011.

In a press release, Tom Wheeler of EPIC wrote: "California's wolves are just starting to return home. Today's decision means these animals will have the help of federal wildlife managers to establish a true foothold in their historic habitat in the state."

"We must learn to coexist with gray wolves. These highly intelligent and social animals play a key role in balancing entire ecosystems," said Kimberly Baker of the Klamath Forest Alliance. "Federal protection is paramount to safeguarding this nation's rightful heritage."

Today the USFWS estimates only 132 wolves survive in Washington state, 173 in Oregon (with only 19 outside of northeastern Oregon), and fewer than about 20 in California. Some western states have had a few wolf sightings in recent years, but wolves remain functionally absent from their historical habitat in



Gray wolf. Credit: Gary Kramer / USFWS.

several western states.

"Over the past two winters, we lost icons of wolf recovery when OR-7 and his mate OR-94 passed away in southern Oregon's Cascades. These two wolves represent the first generation of wolves in western Oregon in nearly a century," said Michael Dotson with the conservation group Klamath Siskiyou Wildlands Center based in southwest Oregon. "Delisting is premature and obviously politically driven."

What is next? If the Department of the Interior, USFWS or groups decide to challenge Judge White's decision, that challenge would be made in the Ninth Circuit Court of Appeals. There has been no decision regarding an appeal by the USFWS, which made this determination in the last administration but was defended by the current administration. The Department of the Interior has told the media that it is reviewing the decision and declined to comment further. Gray wolves were first listed as Endangered under the Endangered Species Act in 1967.

Tax-Free Donations

Gary Falxa and Jim Froland

You may have seen a notice in EcoNews about using funds from an IRA (Individual Retirement Account) to make a gift to the NEC, without paying income tax from the IRA withdrawal. One of us tried that recently, and we decided to share what was learned in the process. If you are of age 70½ or older and have an IRA, you should know about a way to make a non-taxable donation to charitable organizations, such as the NEC and its member organizations. The way is a "Qualified Charitable Distribution" (in IRS parlance, or QCD). A QCD is a transfer of funds from your IRA, paid directly from the IRA to a qualified charity. Amounts distributed as a QCD can be counted toward satisfying your IRA's required minimum distribution (RMD) for the year, and importantly, QCD's are excluded from your taxable income. This is not the case with a regular withdrawal from an IRA — even if you then use that money to make a charitable contribution. If you take a

withdrawal from the IRA, the funds would be counted as taxable income even if you later offset that income with the charitable contribution deduction. QCD's are not counted as taxable income.

Bottom line: If you are considering a contribution to a charity, have an IRA, and are 70½ or older, a QCD can both reduce your taxable income and help support that charity. This is particularly helpful if the contribution would not be tax-deductible for you.

While we recommend that you do your own research about whether this is for you, and talk with your financial advisor, broker, and/or the institution where your IRA is held, here are some QCD basics:

- You must be at least 70½ years old at the time you request a QCD. If you process a distribution prior to reaching age 70½, the distribution will be treated as taxable income. Note that while the age at which RMDs are required is greater than 70½ for some of us, you can still do a QCD at the age of 70½, even if you aren't yet required to take a required minimum distribution.
- Traditional IRAs are eligible. If you have a SEP IRA or SIMPLE IRA, check with your experts — you may be able to do a QCD, if the plan is "inactive" (you no longer contribute to the plan, including for the year in which the QCD is being considered).
- Since distributions from Roth IRAs are already non-taxable, QCDs are not used with Roth IRAs.
- The recipient charity must be a 501(c)(3) public charity (this includes NEC and its member groups).
- Funds must be transferred directly from your IRA custodian to the qualified charity. Do this by requesting your IRA custodian issue a check from your IRA payable to the charity. You can then request that the check be mailed to the charity, or forward the check to the charity yourself. If a distribution check is made payable to you, the distribution would NOT qualify as a QCD and would be treated as taxable income.
- For a QCD to count toward your current year's RMD, the funds must come out of your IRA by your RMD deadline, which is generally December 31.
- You cannot receive any benefit in return for your charitable donation.
- The maximum annual donation for QCDs is \$100,000 (something most of us don't have to worry about!).
- By reducing your taxable income, QCDs may have other benefits. For example, it could lead to a lower tax bracket, or avoiding a reduction in Social Security benefits.
- Unfortunately, tax code does not allow QCDs from any other employer-sponsored plan such as 401(k) or 403(b) plans.

This IRS website has more information: www.irs.gov/retirement-plans/retirement-plans-faqs-regarding-iras-distributions-withdrawals.

If interested, please check with your financial advisor, broker or IRA financial institution to find out whether a Qualified Charitable Distribution would work for you.

Community Coastal Column

A SUSTAINABLE DEATH: BENEFITS OF A NATURAL BURIAL

Ivy Munnerlyn, Coastal Programs Coordinator

Death is all around us, from the decomposing redwood log to the California condor's midday snack. Anyone who has spent time in nature has witnessed the cycling of nutrients from body to soil and back to body again. So why do modern burial practices sometimes get in the way of this process?

Over thousands of years, humans have found countless ways to lay our dead to rest. Many of these traditions emphasize the return of the body to the natural world, while others attempt to preserve the body from decay. It's important to note that all burial traditions are valid, though some may seem strange to us. In the neolithic city of Çatalhöyük in Southern Turkey, people buried their relatives under the foundation of their houses and incorporated their body parts in furniture and decoration. Thousands of years in the future, people will likely find our current burial practices just as odd. As environmentalists, we try to make choices in life that prioritize our belief in the inherent value of nature. We should strive to do the same in death. In many ways, our bodies are the most profound thing we have to offer to the natural world. Therefore, it's imperative that we consider a burial method that does the least harm and the most good to the planet we've spent our lives protecting.

BURIALS IN AMERICA

For most of post-colonial American history, a traditional casket burial has been the most popular funeral practice. In the early days, bodies were cared for by the family and buried in a wooden casket or cloth shroud as part of a simple home burial. Things changed during the Civil War, when soldiers who died on the battlefield were embalmed with chemicals in order to preserve their bodies for the journey home to their families.

By the mid- 20th century, this innovation had created a booming funeral industry that charged families upwards of a fifth of their annual income for one burial. This type of burial is still popular,



A prepared grave at Prairie Creek Conservation Cemetery (PCCC) in Gainesville, FL. Source: PCCC Facebook.

accounting for 43% of funerals in the United States in 2015, according to the National Funeral Directors Association. (Jessica Mitford's 1963 book *The American Way of Death* dives into this topic more fully, for those who are interested.)

Unfortunately, emphasizing the preservation of the body can come at a cost to the environment. As the grave ages, embalming chemicals and the metal, paint, and treated wood of the casket can leach into the surrounding soil. Each grave is lined with a concrete vault and lid, which can disrupt soil hydrology and health. Because of the financial and environmental costs associated with these burials, cremation has recently become the most popular type of funeral in the US. But an emerging trend of natural burials has the potential to maximize the body's gift to nature while virtually erasing any harm.

A NEW OLD WAY

Natural burial isn't a new idea. It's essentially a revival of the pre-embalming funeral practices used by many cultures throughout the world. Natural burial, which is legal in all states, forgoes underground vaults, embalming, and caskets or shrouds made of synthetic products. The deceased is returned to the soil in a simple way, without interventions that get in the way of natural processes. The emerging "conservation burial" movement takes this commitment to the Earth to the next level. According to the Conservation Burial Alliance, "Conservation burial, at its core, is about the creation and support of multidimensional social and ecological spaces that sustain us as they sustain the planet and all who dwell on it."

Just outside of Nashville, TN sits one of the nation's few conservation cemeteries. At Larkspur Conservation, a combined responsibility to the deceased, the living, and the land, has protected and restored a rare collection of ecosystems. Through a partnership with The Nature Conservancy, the 112 acre property was purchased and set aside as both a nature preserve and burial ground. Restoration efforts funded by burial costs have created a sanctuary visited by nature-lovers and mourners alike. Conservation cemeteries like Larkspur have the potential to transform the way we think about death and inspire a more holistic understanding of our body's connection with nature.

Currently, Blue Lake Cemetery is the only cemetery on the north coast that accommodates natural burials. And if you want a conservation burial, the closest option is White Eagle Memorial Preserve in Southern Washington. Considering the strong community of nature-lovers on the north coast, this land would make a great home for California's first conservation cemetery. What better way to spend eternity than pushing up trillium under a redwood tree?

To learn more, visit larkspurconservation.org and conservationburialalliance.org. For an entertaining and informative look at burial practices in general, check out the YouTube channel "Ask A Mortician" or follow the IG account @talkdeathdaily.

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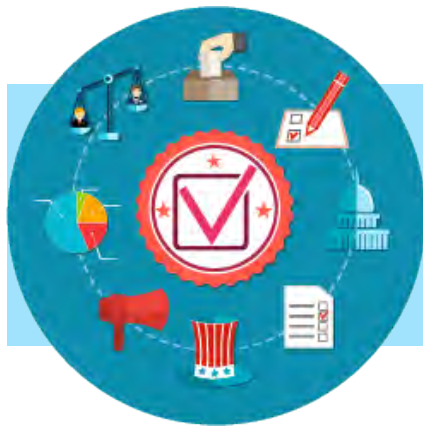
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LOCAL GOVERNANCE

WHAT IS HCAOG?

Elaine Weinreb

The Humboldt County Association of Governments, or “HCAOG” (pronounced “h-cog”) is a powerful but little-known Joint Powers Authority – a government agency made up of other government agencies but independent of them. Such agencies exist all over the state, and regulate issues that affect entire regions. Usually they are county-wide, but in large population centers, they may include several counties.

COGs generally deal with creating regional transportation plans and funding transportation projects — helping distribute the big bucks that flow down from the state and federal governments in a reasonable and equitable fashion.

HCAOG represents the seven incorporated cities within the borders of Humboldt, plus the unincorporated areas of the county. Each of these entities has one representative on HCAOG’s Board of Directors – generally a county supervisor, and six city mayors or councilmembers. Humboldt Transit Authority and Caltrans each have an advisory seat and vote on certain matters.

The state and the feds have large pots of money dedicated for specific transportation purposes: highways are the best known, but there are also funds for rail, buses and, over the past couple of decades, bikes, pedestrians, and trails. Naturally there are more demands for this money than is available: part of HCAOG’s job is to sort through the various projects proposed by its member agencies, evaluate them, and, when possible, fit them into an appropriate funding slot. These plans are frequently

updated, and are open to public comment during the planning process.

For example, Eureka may want to improve some of its main roadways to make them more pedestrian-friendly; while a smaller city may want to install some badly needed traffic signals, or repair a main traffic artery that gets heavy use but is showing signs of wear and tear. The county may be interested in constructing bike trails, or evaluating the need for more bus service in rural areas. Humboldt Transit Authority may be considering new routes,

and wondering if they will pan out. There is probably money available somewhere for each of these types of projects, and HCAOG’s job is to locate it, see when it may become available and, if the project is approved, fit it into a long term plan. Every two years, a short-term plan is developed, based on the larger plan, the availability of the money, and the urgency of the need for the improvement. The most recent Regional Transportation Plan can be found at hcaog.net/documents/regional-transportation-plan-2021-update.

Much of the actual heavy lifting is done by the Technical Advisory Committee, or TAC, a group composed of a transportation planner or engineer employed by each of the member agencies. Local Native American tribes are also included in the TAC and several tribes send their tribal transportation managers as voting members. Like the board meetings, TAC meetings are transparent and open to public scrutiny.

HCAOG has an additional mandate – overseeing the regional distribution of the state’s requirements for new housing stock. This process is known as RHNA (pronounced ree-na), and it stands

for Regional Housing Needs Allocation. The state provides HCAOG figures on how many housing units need to be planned for in our region. HCAOG collaborates with the cities and the County to figure out the housing requirement based on the entity’s population, often taking into consideration the availability of necessary infrastructure such as water and sewer lines. This is sometimes controversial – local governments may resent being told that they are required to make so many thousand units of new housing available – and HCAOG’s job, once again, is to sort it all out.

HCAOG has an excellent and extensive website at www.hcaog.net, and holds monthly board meetings that are open to the public. Meetings are held on the third Thursday of the month at 4 p.m. and like everything else these days, are virtual. Zoom links are on the agenda, which is posted on the website.

The professional staff consists of Executive Director Beth Burks and two planners (Oona Smith and Stevie Luther) as well as support staff. The staff has a friendly and helpful attitude toward the public.



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Eye on Washington



Dan Sealy, NEC Legislative Analyst

REP. HUFFMAN'S FISH ACT, TO PROTECT SALMON STRONGHOLDS NATIONWIDE

After conducting several town hall style meetings in coastal communities across the U.S., Congressman Huffman used his chairmanship of the House Natural Resources Subcommittee on Water, Oceans and Wildlife to introduce legislation to protect critical salmon habitat. That legislation was entitled the "Salmon Focused Investments in Sustainable Habitats Act" or simply, the "FISH Act."

"There could not be a more urgent time for the Salmon FISH Act than right now. Wild salmon populations throughout the West Coast and Alaska are showing clear signs of struggle due to climate change and habitat loss, and local communities are struggling as a result," said Tim Bristol, Executive Director of SalmonState.

Congressman Huffman incorporated comments on the FISH Act and is seeking additional comments from stakeholders in preparation for reintroducing the Act in the next few months. You can read the current version of the FISH Act here.

WHAT'S UP WITH THE GREAT AMERICAN OUTDOORS ACT?

During the waning days of the last administration, Congress passed the Great American Outdoors Act (GAOA) which permanently funded the Land and Water Conservation Fund through taxes on offshore oil and gas leases. Though oil and gas leasing were going gangbusters, money for conservation had been siphoned off for decades. That left priority land acquisition, park and refuge infrastructure failing and key ecological restoration funds in short supply. Though the former President signed the law, his team successfully delayed implementation of the funds through poor planning. On Feb. 9, a congressional subcommittee, mostly friendly to the GAOA, grilled representatives of the Biden administration to assure projects are being properly prioritized and funded. Members of the Senate subcommittee expressed concern that delays may result in loss of revenues with sunset dates. Delays were also frustrating owners willing to sell their private lands within or adjacent to existing National Parks and other federal lands, leaving them no choice but to consider selling to other private entities. In addition, Senators used the

hearing as an opportunity to reiterate that agencies such as the Park Service and Forest Service need to increase their budget requests for staffing in recognition of exploding visitation over the last decade and especially during the past two years.

CAN I BACKFILL MY WETLAND?

That is the case before the U.S. Supreme Court right now. Though the Biden administration announced it was rapidly rewriting the regulations that define which oceans, lakes, rivers, streams and wetlands are protected under the Clean Water Act (CWA), Chantell and Michael Sackett want to fill wetlands on their property that backs onto Priest Lake in Idaho. But they were denied that permit by the Environmental Protection Agency (EPA), which enforces the CWA provisions. They sued and lost their case *Sackett v. EPA*, et al. in lower courts, so the Sacketts, backed by the well-funded and conservative-leaning Pacific Legal Foundation, are appealing the decision saying the wetlands on their property do not qualify as "waters of the United States" (WOTUS). The Environmental Protection Agency and Army Corps of Engineers, the agencies that manage and enforce the Clean Water Act provisions, disagree, saying the case history has long determined such wetlands are protected under WOTUS. The case will be heard later this summer. In 2006, Justice Scalia wrote an opinion describing what counts as WOTUS saying only "those relatively permanent, standing or flowing bodies of water forming geographic features that are described in ordinary parlance as streams, oceans, rivers and lakes...dry arroyos in the middle of the desert." If the current court uses his description as the rule, more than 75% of the rivers and streams in the arid Southwest could lose protections as well as countless acres of wetlands across the nation.

INCREASING CONTROLLED BURNS TO REDUCE IMPACTS OF WESTERN WILDFIRES

In January the Biden-Harris administration announced a plan to address the impacts of the climate crisis on western forests and local communities. The plan would require \$50 billion for controlled burns, or what Native Americans call "good fire." Some Native American tribes used controlled fires to enhance food sources and habitat for thousands of years. Environmental scientists encouraged a return to these practices as early as the 1920's but

it was not till the 1960's that the U.S. Park Service became the first agency to officially adopt controlled fires as a management tool. It was followed by the U.S. Forest Service in 1974 when it adopted a policy to allow naturally occurring fires in wilderness to burn in some instances.

Beginning this year, regions that have experienced or are likely to experience out of control wildfires such as California's Sierra Nevada Mountains, the east side of the Rocky Mountains in Colorado, and portions of Arizona, Oregon and Washington State will be targeted for an increase in controlled burn plans. Though no specific projects were revealed, the full scope of work envisioned could reach 80,000 square miles and approximately half that acreage is privately owned. No new specific funds have been appropriated, though the recently-passed federal infrastructure bill includes funds specifically for increasing controlled burns.

Controlled burns by the U.S. Forest Service have often been stymied not only by fear of fire, but lack of funds for the large planning effort and crews required to conduct controlled burns. Potential for lawsuits by private landowners and nearby communities when controlled burns become out of control by sudden shifts in weather or other conditions are a real concern as well. The public and land management agencies will need to balance that risk against devastating wildfires. It will also require robust research to learn the short and long-term impacts of increased controlled burns in varying ecosystems.

MAKE YOUR VOICE HEARD

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4th District - Virginia Bass

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5th District - Steve Madrone

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U.S. REPRESENTATIVE - CALIFORNIA DISTRICT 2

Congressman Jared Huffman

www.huffman.house.gov

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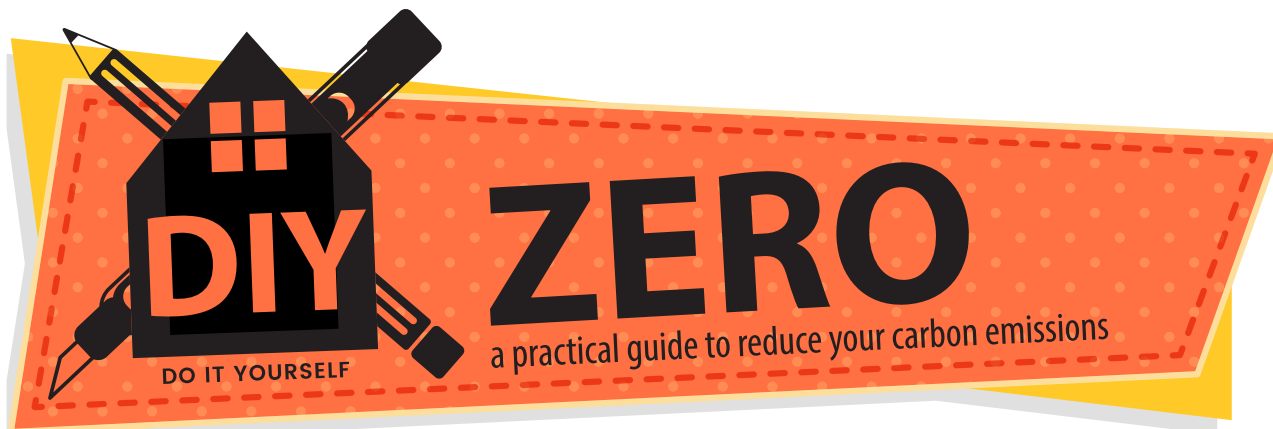
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TRAVELING LIGHT: HOW TO RIDE THE BUS

Susan Nolan

“I can skip this article,” you may be thinking, “I have a car.”

But wait! The bus has a lot to offer. It’s cheaper than driving. The bus will never hit you up for new tires, insurance, a tune-up, or even parking. Gas five bucks a gallon? Not your problem.

Plus: you don’t have to pay any attention to the road. Many riders relax with headphones for podcasts or are absorbed in their phones. Free WiFi is available on board.

And the bus is going to run whether you hop on or not, so your carbon footprint is negligible. Some of Humboldt Transit Authority’s buses are even electric.

If your route begins and ends near a stop (quite possible), and you don’t have lots of gear to haul, the bus can move you with little hassle, responsibility, or cost.

The Humboldt Transit Authority (HTA) is the umbrella organization for several bus lines, the most important being the Redwood Transit System, the main line that stops at population centers along the 101 corridor from Scotia to Trinidad. Service is most frequent between HSU and College of the Redwoods: every half hour from about 7 a.m. to 7:30 p.m. at every stop. Stops from HSU to McKinleyville, and CR to Fortuna, get service every hour. The furthest reaches, from McKinleyville airport to Trinidad, and south of Fortuna to Scotia, get service four or five times a day. Manila also sees a bus four or five times a day. The schedule is reduced on weekends, and there’s no service on holidays.

Some buses in the system are electric. HTA is exploring hydrogen, perhaps setting up a joint fueling station with other service vehicles. Arcata has two electric buses on order.

You can travel anywhere from Scotia to Trinidad for \$3.50. (\$3.15 for youth 3-17, the disabled, and seniors 62 and over). Kids under age two ride free. Unfortunately, change is not available. A day pass will allow multiple rides for just \$5.25. A one-way trip to Willow Creek from Arcata is \$5.

Redwood Transit’s buses don’t always cover the entire length of the route, but free transfers are available,

so if your bus from, say, Fortuna doesn’t go all the way to your destination in Trinidad, you can use a free transfer to complete your trip on the next bus.

The Blue Lake Rancheria Tribe’s bus system, powered by biodiesel and electricity produced at the rancheria, runs from Arcata to Blue Lake.

If you use the bus a lot, or even just once in a while, you can simplify life by buying a ticket for \$10 or \$20, either on the bus, at the HTA office in Eureka or at the transit center in Arcata. Fares are reduced to \$1.80 for ticket-using seniors, youth, and the disabled. Also, you can buy a digital pass using tokentransit.com or hta.org/fares/purchase-tickets-online.

All Cal Poly Humboldt students, including OLLI members, receive an HTA pass with registration; CR students can buy a 31-day pass at a reduced rate. All day, weekly, and monthly passes are a real bargain for hardcore riders; check the website for these good deals.

But what about riding with all those strangers during a pandemic? Well, all riders are required to mask. Probably 95% do. There is good air circulation through the entire bus, with an air purifier running continuously past a UV light. Seats are marked to encourage spacing. Buses are misted with disinfectant every night. The bus is most crowded during the usual commuter rush hours; outside the times most people are going to and from work and school, there’s lots of room. And you can change seats if you’re not comfortable with a neighbor.

The bus stop is a little too far from your stop? You can bring a bike. Every county bus has a rack in front. The website includes a short video showing how to lock your bike securely in place. Specifically trained service dogs can ride at no charge, but otherwise, dogs are not allowed. Wheelchairs are welcome; the buses all have either lifts or ramps to help wheelchairs and the mobility-impaired, and straps that the driver clips on to secure wheelchairs.

Want to try it? Just show up at your stop. Often (but not reliably) there’s a small sign on a pole. A map of stops and schedules are on the website, or you can download the Transit app and get real-time updates on when your bus will arrive. When the bus appears, signal the driver. When you get on, a

machine next to the driver will accept your cash or ticket. When you’re ready to get off, pull the cord on the side of the bus which triggers a buzzer.

The HTA website is very helpful: <https://hta.org>. It has maps, fare information, schedules, and regulations. Their trip planner can calculate travel time, including walking time, for your journey. Offices for the Humboldt Transit Authority are at 133 V Street, Eureka, and for the Arcata Transit Center, 925 E Street, Arcata.

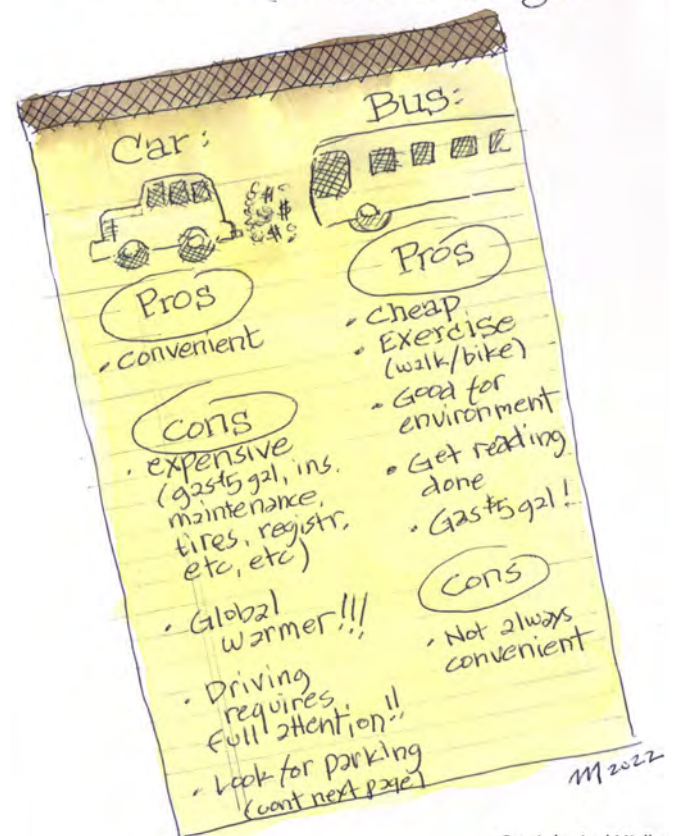
Here’s what I like about the bus: it’s for everyone. Your fellow riders will be commuters, kids going to school, the homeless, the aged, and college students. Some garrulous old coot may buttonhole you to relate his life story but it will certainly take you out of your bubble! But what about riding with all those strangers during a pandemic? Well, all riders are required to mask on all transit, per federal mandate, through March 18, 2022—it’s not clear if that will be extended. Probably 95% do mask on RTS buses.

Looking out the window is fun. Sitting up high, peering out sideways, you’ll see views you can never catch while driving. No responsibility. There’s a certain feeling of freedom in not being behind the wheel, and not having that expensive asset, your car, vulnerable on the road or in a parking lot.

For most of us, transportation is a big chunk of our carbon footprint, but on the bus, it’s essentially zero. You can’t argue with the price: for just \$5.25 each on a day pass, you and your buddy can head out to Trinidad for a full day adventure. Traveling light!

Thanks to LeAnn Schuetzle at the Arcata Transit Center for help with this article.

The Transportation Ledger



Comic by Joel Mielke



Get on Board for the Climate

Keep That Solar Power Coming

Martha Walden

During the middle of the day on sunny days, California has so much solar power available that it's dirt cheap, sometimes even free. It comes from big solar farms and the rooftops of a million homes. This abundance of clean renewable energy should be a cause for celebration – and would be much more so if we could store the electricity and use it when the sun isn't shining. But more about that later.

Instead of celebrating, the California Public Utility Commission (CPUC) has pitted rooftop solar against utility-scale solar. Rooftop solar producers – once DIY role models – have now been put on notice that they aren't contributing enough to the system because they pay less grid maintenance fees than other customers. Also, they supposedly receive too much money for their surplus electricity compared to utility-scale solar, so that inflates rates for everyone.

PG&E charges so many different fees and rates that it's difficult to pinpoint who exactly is paying for what. For-profit corporations are hard to trust, much less sympathize with. Will they actually charge less for electricity if the CPUC has its way with rooftop solar?

Rooftop solar and utility-scale solar should not be made to compete against each other. Each has its advantages, and we need both of them. Utilizing rooftops for solar doesn't run afoul of land use issues as the big solar farms do. Each utilizes different sources of funding. People who make their own electricity are not detracting from corporate financing for big installations, which are both cheaper and faster to install than rooftop solar.



Rooftop solar. Source: Kindel Media, Pexels.



Utility-scale solar farm. Source: Red Zeppelin, Pexels.

All this talk about so much solar energy makes it sound as though we Californians are living in a renewable energy paradise, but of course that's not true. Renewable energy accounts for only a third of our energy use. Solar power overflows mid-day, and at night California sometimes pays other states to take excess wind power. Yet there's not enough clean energy for at least half of peak usage hours, so utilities fire up peaker power plants that run on natural gas. For clean electricity to be available for everybody, we should keep growing both rooftop and utility-scale solar.

Much more energy storage is necessary. The expense and availability of utility-scale batteries has held up the storage option, but that may be about to change. New iron-air battery technology has everyone's hopes up. Is this the Holy Grail at last? These batteries are a tenth of the cost of lithium batteries. Because this is such a recent development, it's unclear to me if iron-air technology can be sized small enough for residential storage. If not, it could at least free up lithium for smaller uses.

The energy world must evolve rapidly as we face the impacts of climate change. The solar and wind revolution has shown us the path to plentiful clean electricity. We now need new modes of storing and distributing it. In addition to utility-scale storage, neighborhood microgrids that connect and disconnect to the larger grid – such as Redwood Coast Energy Authority's microgrid at Redwood Coast Airport – will play a vital role as well as household microgrids. The CPUC's controversial bid to change the net-metering rules includes a proposal to incentivize storage for rooftop solar. Coupled with fair payment for solar producers, the proliferation of residential microgrids could help all of us.

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Michael D. Pulliam



In light of the start of the Lunar Year of the Tiger, a new report from WWF has revealed an increase in tiger population for the first time in 12 years

The Happy Broadcast

ARTIST RESIDENCY AT RECOLOGY SAN FRANCISCO

Recology is a private employee-owned company whose mission is shifting 'waste management' to 'resource recovery' through sustainable collection and recycling programs. The following is reprinted from their website, recology.com.

"The Artist in Residence Program at Recology San Francisco is a unique art and education program that provides Bay Area artists with access to discarded materials, a stipend, and a large studio space at the Recology San Francisco Transfer Station. By supporting artists who work with recycled materials, Recology hopes to encourage people to conserve natural resources and promote new ways of thinking about art and the environment.

"Since 1990, over 145 professional artists and 40 university student artists have completed residencies, making art from discarded materials. The studio is located at the San Francisco Transfer

and Recycling Center (Recology San Francisco), a 46-acre facility that includes the Transfer Station (where trash goes before being sent to landfill), the Household Hazardous Waste Facility, the Organics Wing, the Public Disposal and Recycling Area ("the dump"), and other recycling areas. The facility, which is located west of Highway 101 near the former site of Candlestick Park, is also home to a three-acre sculpture garden containing work by former artists-in-residence.

"During their four-month residencies, artists have scavenging privileges and 24-hour access to the company's well-equipped art studio. Artists speak to elementary school classes and adult tour groups about the experience of working with recycled materials. At the conclusion of their residency, Recology hosts a three-day, public exhibition and reception of their completed artwork. Artists contribute pieces to the program's permanent collection, and these artworks continue to be shown in off-site exhibitions that promote recycling and reuse.

Program Mission:

- To encourage the reuse of materials
- To support Bay Area artists by providing access to the wealth of materials available at the public dump
- To prompt children and adults to think about their own consumption practices
- To teach the public how to recycle and compost in San Francisco through classroom lessons that explain the City's three-bin (recycling, composting, trash) system.

For more information, including contact details, visit recology.com. Source: recology.com



Making aviation history: for the first time, United Airlines flew the first passenger flight using 100% plant based fuel made of agricultural waste products

The Happy Broadcast

STUDENTS FIGHT EROSION WITH RECYCLING

Two college seniors in New Orleans, Louisiana, began a nonprofit company for glass recycling because their area discontinued glass collection. The Glass Half Full organization recovers glass products and processes them for use in disaster relief, eco-construction, and making new glass items.

Many cities and municipalities around the US shy away from curbside glass collection in their recycling programs. The glass items people put in their recycling bins often end up contaminated, or they break and contaminate other waste streams like metal and paper recycling. If handled properly, glass products are 100% reusable, but sadly only about a quarter of glass in the US is recycled.

"A single piece of glass in your recycling bin in [New Orleans] will cause the entire load to be sent to the landfill, where it will never decompose," Glass Half Full writes. "New Orleans wastes millions of tax dollars... importing millions of pounds of sand. We are preventing these unnecessary, wasteful, and expensive practices by providing a sustainable alternative."

Glass Half Full collects bottles from businesses and designated residential drop-off sites and transports them to an in-house processing facility. There the glassware has caps and corks removed, gets sorted, cleaned, tumbled, and pulverized, and has leftover materials (like label shreds) sifted out. The result is either large chunks (called 'cullet'), or fine sand soft enough to run through your hands. This mixture is separated and apportioned: cullet can be turned into jewelry and art or melted to form new glass objects; sand can be used to fill emergency sandbags or sold to eco-construction projects. They boast, "The average recycling facility throws away about 60-90% of what they receive... our rate is less than 2%."

Glass Half Full aims to help restore eroded stretches of Louisiana's shoreline using recycled glass sands. As of 2022, there is a worldwide shortage of usable sand; much of the demand is currently met by dredging various waterways in a laborious and destructive sand-mining process. Recycled glass can serve some of this demand, providing sand for the eroded barrier islands and sandbars that are crucial in protecting coastlines. Glass Half Full reminds us, "Returning sediment to wetlands combats erosion and promotes the return of native foliage and wildlife, which will ultimately strengthen Louisiana's economy and preserve our food supply."

The Keep Louisiana Beautiful Conference recently gave Glass Half Full the Most Innovative Program award. Be sure to check your area's waste management company for details on glass recycling, and help give glass the second chance it deserves.

Source: Good News Network, Glass Half Full website

CREATURE FEATURE

Lea Eider, Coastal Programs Intern

Blackcap Raspberry

Rubus leucodermis
Chkohpeen (Yurok)



Wild Foods

BLACKCAP RASPBERRY

(Rubus leucodermis)
Chkohpeen (Yurok)

Blackcap raspberry, also known as whitecap raspberry or blue raspberry is a cousin of the domesticated raspberry that can be found throughout western North America.

Though they resemble blackberries, they are actually quite different. These berries have a long history of being eaten fresh or dried by Indigenous people. They are most commonly used to make a purple dye when grown commercially.

Blackcap berries are ripe when they're dark purple. They ripen over the course of several weeks, so you might want to return to the same plant a few times to collect more. When picking berries, be sure to watch out for the thorns.

These raspberries are delicious eaten raw, used in baked goods, or made into smoothies. They will keep for a day or two in the refrigerator, but they will last longer by freezing. Forage carefully and make sure you have the right plant before eating. Always leave some for the wildlife!

WOODLAND STRAWBERRY

(Fragaria vesca)

Woodland strawberry, an ancestor of the domesticated garden strawberries we have today, is a perennial herbaceous plant in the rose family that can be found throughout Humboldt. Though small in size, the berries are strongly flavored and taste like their domesticated cousins. They are completely edible and may be eaten raw or used as strawberries in recipes such as jams, tarts, or pies.

Woodland strawberries tend to grow on slightly rocky but moist ground, forest edges or alpine slopes. Pick berries with care as they bruise easily. Be sure to watch for a lookalike species 'mock strawberries'. While not poisonous, these berries are virtually tasteless. Mock strawberries may be easily identified as they have yellow flowers whereas woodland strawberry flowers are white. If no flowers are visible, crush a berry between your fingers and check the scent.

Interested in foraging but not sure where to start? Check out fallingfruit.org to find nearby edible plants. This website allows people to create an interactive map of forageable plants in their area.



WILD FOODS



SALAL

(Gaultheria shallon)

Salal is an evergreen shrub native to western North America that's known for its edible berries, which are reminiscent of blueberries.

They were often used both for food and medicinal purposes by Native tribes. These plants are common in evergreen forests, though they grow in other areas such as swamps.

Salal grows up to five feet tall and has large, waxy dark green leaves. The berries are a dark blue-black color and are slightly hairy. Berries are ripe to be harvested when they are plump with a dark blue color.


Salal berries don't come off easily, so it's best to cut them off in stems or bunches and remove the stems when you get home. These berries are often eaten fresh, used in jams, preserves, and pies. Leaves may also be harvested, dried, and used to make tea. As always, forage carefully and research before you eat anything.

Sources: wikipedia, eattheplanet.org, Wild Foods and Medicines, Backyard Forager, HealthyGreenSavvy

CHECK BEFORE YOU GO:

Foraging can be fun but practice good land ethics. Know where you are foraging. If it is private or tribal land, ask permission first. If it is public land, check with the managing agency. Remember wildlife use the same food but do not have grocery stores. Most public land agencies allow for collecting a handful of common berries and nuts but may have limits to assure there is plenty for wildlife and regeneration. Some plants may be protected.

USED REDWOOD LUMBER

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