EcoNews Distribution Volunteers Needed
We are looking for monthly volunteers to help distribute EcoNews to southern Humboldt, northern Humboldt, Del Norte, and Trinity County. Are you interested in helping? Email NEC staff at Carolinenecemail@gmail.com

Bouquets
Sincere Gratitude To:

- We want to shout out Lauren Sarabia of Comfort of Home Catering for being so accommodating and understanding of our decision to cancel the 50th Anniversary. Lauren has been a gem to work with, and we’re so grateful for her.
- A major THANK YOU to Bridgette Garuti, and the team at Humboldt Unitarian Universalist Fellowship. This team has gone out of its way to help us envision our event during such uncertain times. It has been such a friendly, and collaborative experience and we look forward to getting to work with them in the future.
- A big, warm hug and thank you to our departing work-study student, Brittany Kleinshnitz. We will miss your calm, competent grace, but know you’ll do great things wherever you end up.

EcoNews History
- Call for Submissions -
Do you have memories of the early NEC that you’d like to share? Photos, recollections, poems or lessons learned from campaigns? Did the NEC launch you into a life of environmental activism? We want to know what the Northcoast Environmental Center has meant to you over the years, whether you were involved right at the beginning or anywhere else within this last half-century. Please send your submissions or article ideas to Carolinenecemail@gmail.com

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. Email Carolinenecemail@gmail.com

50th Anniversary - Event Canceled -
With the relentless spread of the Delta Variant of Covid-19, we have made the tough decision to postpone our 50th-anniversary celebration until a time we can safely gather in the manner we would like to celebrate this accomplishment. We need to do this without risking the health and well-being of our staff and members and we don’t feel that’s possible at this time.

If this health crisis does not subside in the near future, we will consider doing some kind of virtual event. We appreciate all of the thought and planning that has gone into this event and look forward to celebrating this milestone with you all once it’s safe to do so.

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Fiscally sponsored by the NEC
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NEC Board of Directors
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CJ Ralph, Redwood Region Audubon Society
Gregg Gold, Sierra Club, North Group
Tom Wheeler, Environmental Protection Information Center
Dan Sealy, At-Large
Aisha Cisna, At-Large

NEC Member Groups
Humboldt Baykeeper
www.humboldtbaykeeper.org
Sierra Club, North Group,
www.redwood.sierraclub.org/north/
Redwood Region Audubon Society
www.rras.org
California Native Plant Society
www.northcoastcnps.org
Humboldt Baykeeper
www.humboldtbaykeeper.org
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Zero Waste Humboldt
www.alt2tox.org
Californians for Alternatives to Toxics
www.safealt.org
Coalition for Responsible Transportation
Priorities www.transportationpriorities.org

NEC Affiliate Members

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Guests on Goudi’ni, Wiyot Territory

The ideas and views expressed in EcoNews are not necessarily those of the Northcoast Environmental Center

Recycled Paper Printed with Soy Ink
Pacific Northwest Heat Storm

We were a little unnerved, but not surprised, to read lead scientist at Berkeley Earth Dr. Robert Rohde’s postulation that we could be seeing unfamiliar climate dynamics because the climate system has changed at large scale in ways we don’t yet fully understand. The most striking thing to Rohde isn’t the headline numbers, it’s the modeling which basically says the heat wave was statistically “impossible”.

He believes that the heat storm may have been a proverbial hurricane, e.g. a rare dynamical interaction that has always been possible, but so rare that in 70 years of data we never observed a weather pattern that was qualitatively similar.

Or, he says, we may be seeing unfamiliar dynamics because the climate system has changed at large scales in ways we don’t yet fully understand. I consider this the scarier option.

As of now, we don’t know the answer. In all likelihood, entire PhDs will be written about the Pacific Northwest heat storm. Nature has thrown us a scary curveball, and we’ll have to wait and see if this was just an exceedingly rare one-off or a sign of more to come.

Environmental Equity and Wildfires

According to a report by Zack Colman in Politico, while the U.S. as a whole may be facing its worst wildfire season in a century, one particular group is threatened more than others: the Latinx community. A new analysis of census data shows they are twice as likely to live in areas most threatened by wildfires relative to the overall U.S. population; the Latinx population makes up about 18% of the U.S. population but represents 37% of the people who live in the areas that are identified as facing the most extreme wildfire risks. As rich, white people flee fire-prone areas it drives up housing prices in the more fire-safe areas, leaving the fire prone areas with more affordable housing. This points to a systemic flaw in our current form of unregulated capitalism. The game is rigged; it’s not a level playing field because wealthy white people always have the advantage.

Social Media’s Real-World Impacts on the Environment

Social media changed the way we receive information and restructured the way we communicate in an incredibly short period of time. While there are some social scientists, journalists, and activists that have been raising concerns about how this is affecting our democracy, mental health, and relationships, we have yet to see biologists and ecologists weighing in as much. That recently changed with a new paper published in the prestigious science journal, Proceedings of the National Academy of Sciences of the United States of America (PNAS), titled “Stewardship of global collective behavior.”

In this paper, seventeen researchers who specialize in fields from climate science to philosophy, make the case that academics should treat the study of technology’s large-scale impact on society as a “crisis discipline.” A crisis discipline is a field in which scientists across different fields work quickly to address an urgent societal problem — like how conservation biology tries to protect endangered species or climate science research aims to stop global warming.

The paper argues that our lack of understanding about the collective behavioral effects of new technology is a danger to democracy and scientific progress. For example, the paper says that tech companies have “fumbled their way through the ongoing coronavirus pandemic, unable to stem the “infodemic” of misinformation” that has hindered widespread acceptance of masks and vaccines. The authors warn that if left misunderstood and unchecked, we could see unintended consequences of new technology contributing to phenomena such as “election tampering, disease, violent extremism, famine, racism, and war.”

There’s no reason to expect that truth and science will rise to the top of any of these social media ecosystems.

It’s a grave warning and call to action by an unusually diverse swath of scholars across disciplines — and their collaboration indicates how concerned they are.

Staff Happenings

With the relentless spread of the Delta Variant of Covid-19, we have made the tough decision to postpone our 50th Anniversary Celebration until a time we can safely gather in the manner we would like to celebrate this accomplishment. We need to do this without risking the health and well-being of our staff and members and we don’t feel that’s possible at this time. If this health crisis does not subside in the near future, we will consider doing some kind of virtual event. We appreciate all of the thought and planning that has gone into this event and look forward to celebrating this milestone with you all once it’s safe to do so.

In other news, can you believe it’s almost September?! Time for Coastal Cleanup Month! Last year we made a COVID-friendly event by stretching a one-day event throughout the month, and we really enjoyed it. Therefore, this year we are bringing you Coastal Cleanup Month once again. Here at the NEC, we believe that there shouldn’t just be a few select days to focus on marine debris. We advocate for a year-round cleanup mentality. This is precisely why we love the idea of making the whole month of September focused on marine debris removal. To sign up for a cleanup that is hosted by someone near you or at your favorite spot, or to create your own cleanup crew, check out our sign-up form at www.yournec.org/coastalcleanupmonth.

Thank you for doing your part to keep our beaches and neighborhoods debris-free!
LET'S TALK ABOUT THE FUTURE

**NEC Staff**

A half-century is a long time to do anything, but fifty years as a coalition of environmental groups is particularly impressive. While it’s incredibly valuable to learn from the experiences, successes and failures of the past (and believe us, we are definitely taking this opportunity to learn as much as we can), the staff of the Northcoast Environmental Center are turning an eye toward the future and asking, “What might the next 50 years hold for the NEC and the environmental movement on the North Coast?”

In many ways, our vision of the future involves going back to our roots as a center for information and resource sharing, but with an expanded view of the people and issues that are a part of the environmental movement. In the early days, the NEC was a place where young activists and students came together to learn from each other and share the knowledge (both scientific and political) and resources (copiers, fax machines, meeting space) that helped them successfully fight for protections for public land, water and air. This collective knowledge and energy launched many of the founders into careers in environmental protection, policy and politics. Over the years, environmentalism gradually became the realm of the experts since it takes a certain amount of expertise to understand regulatory processes, as well as the skills, patience, and persistence to engage with the agencies in charge of them. Our vision of the future of the NEC is a center where non-experts, i.e. anyone and everyone, can share the knowledge and resources necessary to engage in these processes that affect our environment and become the experts and activists that teach the next generation.

But it’s not just about teaching the next generation, we need to learn from them, too. Cultivating youth leaders and collaborating with leaders and activists who come from different cultures and backgrounds is imperative for the success of the conservation and environmental justice movements, not only so they can carry on the fight, but also because we have a lot to learn from them. As the George Floyd rebellion of summer 2020 was raging, we took a hard look at ourselves and the make-up of the organization and saw that we need to make changes to become more equitable and to more accurately reflect the diversity of the environmental movement on the North Coast. By building relationships with Indigenous, Latinx and Black-led groups and activists who are working for environmental justice we will not only build our collective capacity to fight the various threats to our environment and ourselves, but we will also have the opportunity to learn from each other and build community.

Our vision of the future also recognizes that this movement is more than just policy and lawsuits, it’s also about the people who are involved and treating us all as whole human beings, not just numbers. There are many barriers to getting involved in this work, including the emotional toll of facing environmental degradation, the physical overwork that can come from long hours on stressful campaigns, and the social barriers that exclude many working people and parents. We envision the future of the NEC as being one of community, in which we value and support each other as much as we do clean water, clean air and endangered species.

The NEC is privileged to be a non-profit with extensive history, deep ties to the community, and loyal membership. We see a future in which we utilize these privileges in solidarity with local tribes, people of color, the immigrant community, disability rights community, and other underrepresented groups so we can learn from each other and create meaningful collaboration. The coming years will be vital in the fight against climate change and all of its causes, and collaboration and intersectionality are more important than ever. We are honored to have the opportunity to learn from the dedicated activists, scientists and conservationists who founded this organization, and to help shepherd it into the future.

If you want to help the NEC achieve this vision of the future, consider supporting us in the present by attending our events, volunteering, and/or donating.

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**HIRING NEC INTERNS FALL 2021**

We are looking for interns for the Fall 2021 - Spring 2022 semesters! We have two internships: Coastal Programs and EcoNews Journalism. Visit [www.yournec.org/internships](http://www.yournec.org/internships) for more information. Photo: NEC staff, volunteers, and interns having a fun time promoting Zero Waste Coastal Cleanup Day 2019.
Letters to Econews

County and State Officials are Trading Our Fish and Owls for Pot Farms

Local officials in county government and those in relevant state agencies are trading away our fish, owls, and other important elements of our natural ecosystems for the benefit of large out-of-control cannabis grows. The County Planning Department and its rubber-stamp planning commission are ignoring the great harm they are causing by approving grow permits one after another, most with fossil fuel powered generators and stream diversions, with no accounting for the number or size of these farms in any particular watershed. A recent example, where the planning department didn’t even list the correct watershed, is a huge approved proposal by Green Grow LLC, which was reported as near Briceland, in the Eel River watershed, when it actually is near Ettersburg in the Mattole watershed. This grow has 47 greenhouses, five generators, and three water diversions! Apparently, our officials have no concern over the size or the number of grows occurring in a particular area, let alone their cumulative impacts. Planning Department officials continue to push these bad growing plans through the poorly informed Planning Commission. This broken process not only violates the public trust, but also violates state law (California Environment Quality Act or CEQA). The Board of Supervisors needs to act immediately to stop this abuse of the permitting process.

We Regret The Error

It was brought to our attention that a photo we included in the July issue of EcoNews was erroneously identified as Dudleya farinosa. The photo we printed was of Sedum spathulifolium subspecies pruinosum, often sympatric with Dudleya farinosa. We regret the error. Here are the two species side by side so you can see the difference.

I used to hear owls every night at my home near Ettersburg, now I never hear them. Even the quietest generator to the human ear is too loud for owls to hunt because they use the faint sounds of rodent (and other small creature) movements to locate their prey. If you can’t eat you have to leave. If you don’t think owls are important, just ask anyone who is overrun with mice! On top of this noise is the fact that generators use fossil fuels with their carbon footprint. If you need electricity and can’t go solar you are out of step with the times and are just too greedy. Furthermore, these officials are also approving multiple water diversions! My God! What does it take to recognize the impacts this has on the native fish in a time of drought?

The Creator gave the first water rights to the fish, not the humans. It is high time humanity recognized this and acted appropriately. Both the state water and wildlife agencies need to step up and do their jobs if the County Planning Department and the supervisors won’t. The fish, and the fishing communities, should all have priority over cannabis grows. It is time to recognize we are in a drought that will not likely go away any time soon. It is imperative that both the county and state agencies do the right thing and recognize that carry capacity is real, resources are finite, and that we need to rein in the cannabis gold rush to a sustainable level within local ecosystems. Of the many local environmental organizations, only the Northcoast Environmental Center has taken a stand on this issue. It is time for the others to speak out. Also, we need to find representatives who recognize the reality of climate change and will agree to stop the approval of these out of control permits. Furthermore, those supervisors who are themselves, or have family, involved in the cannabis industry should do the right thing and recuse themselves from taking a stand on this issue.

- Hart Welsh

A Victory for Summer Steelhead

July 3, 2021 – Only a small genetic difference separates winter-run and summer-run steelhead, but that little bit of nucleic acid makes a big difference. Last month, the California Fish and Game Commission voted to list the North Coast’s summer steelhead under the California Endangered Species Act. This week, Gang Green dives into the difference between these two runs to learn why preserving summer steelhead may be important in a warming world, why the fish are teetering on extinction, and some strange hope for a rebirth of summer steelhead after Scott Dam is removed on the Eel River.

Rep. Jared Huffman on How the North Coast’s Wild Lands are Faring in D.C.

June 26, 2021 – Congressman Jared Huffman joins Gang Green to talk about this legislative session. Top of his mind, as always, is his public lands bill — the “Northwest California Wilderness, Recreation, and Working Forests Act” — which packs together new Wilderness designations with fuel breaks, trespass cannabis clean up, new trails and visitor centers, and more.

Is Your Fish Safe to Eat?

June 19, 2021 – Mercury is commonly present in fish, but in wildly different concentrations based on the life history of the species. What local fish species are safe to eat and at what amounts? Humboldt Baykeeper is here to help.

The Bundy Bunch Crash the Klamath

June 12, 2021 – Drought-related tension threatens to boil over in the Klamath. Ammon Bundy’s posse of right-wing terrorists are threatening to open irrigation gates of Upper Klamath Lake, by force if necessary, to illegally divert water held in reserve to protect endangered fish.
INTO THE WILD

Dan Sealy

As a young man moving to Arcata from Oklahoma in 1970 to attend HSU, I had little-to-zero experience with the typical outdoor adventures that would be at my Redwood doorstep. Nor did I have the transportation to get me into the wild. But I was not alone and there was an on-campus club to inspire and teach me: the Boot and Blister Club.

Before there was a university student center to provide rental equipment and programs, Boot and Blister (BnB), a student-run club with a catchy name, teamed up newbies with students who had a crazy amount of experience from skiing and biking to backpacking. They also hooked up car-less people with those who had cars for rides to outdoor destinations and sponsored an annual swap meet. BnB, led by geology student Mike Diggles and Humboldt faculty advisor, librarian Charlie Bloom, enthusiastically became a founding member group of the Northcoast Environmental Center. What you didn’t get at a swap meet or borrow from a friend you could rent or buy at the Arcata Transit Authority (now Adventures Edge) on 10th Street where the concept of Northcoast Environmental Center was hatched in 1971.

Though hiking, backpacking and skiing were fun, the firsthand experience in these beautiful places -- the Trinity Alps, Redwood Creek, Marble Mountains and the Yolla Bollys -- gave credibility to BnB members when providing testimony to save those same places. The Wilderness Act became law in 1964 and many dedicated nature-lovers testified to the importance of protecting the wild places which were under attack. At public hearings, we advocated for the greatly needed expansion of Redwood National Park and the establishment of new wilderness areas. BnB members provided powerful witness with words and pictures of once lush and fish-filled streams that were now destroyed by silt and logging debris. We could be the ones to stand up in hearings and evoke the inspiration of quiet, the beauty of wildlife and wildflower-filled mountains and valleys. No one could doubt the truth of our testimony because we lived it.

I recall a snowshoe / cross country ski trip to what I now know was the Trinity Alps Wilderness. I do not recall the cold, nor the meager camp meals. I do remember the exhilaration I shared with my fellow adventurers, men and women who lived for the joy of getting outdoors. A year later, Lucille Vinyard, Chair of the North Group of the Redwood Chapter of the Sierra Club (also a founding group member of the NEC) chartered a bus to put witness into action. Citizens from the coast rode across the snowy highway 299 to testify at a public hearing in Redding. It was well beyond midnight when we loaded back into the bus to return home. My testimony was not just from an academic, good-business or emotional perspective. I could testify to the personal importance of that snowshoe camping trip, the genuine laughter around the campfire as we told bear stories after dark, the exhilaration of waking up to a perfect, snow-covered silence and the feel of my fingers in clear, icy water rushing through an ice-fringed rocky stream channel. I wanted more generations to have the opportunity for those experiences. No one could challenge my words.

EXECUTIVE DIRECTOR, Karen Nardi. There was so much to learn about warehousing, processing materials according to buyer specifications, trucking regulations, local government, and increasing the commercial cardboard collection service for businesses. On Karen’s last day of training me, she urged me to convince the NEC board to allow ACRC to separately incorporate as its own 501(c)3 nonprofit. She had tried and failed. She explained that with the growth of recycling, the NEC’s decision-making structure could not keep up with ACRC’s needs for deciding the best systems, marketing the materials, hiring employees, financing, and large purchases of trucks and processing equipment. She said, “You’ll see what I mean when you give progress reports at their monthly board meetings.” Several months on the job and attending board meetings that went late into the night with political strategy debates, I was convinced Karen was right.

One by one, I met with board members to present the ACRC perspective. It was bursting at the seams and needed a strong financial strategy and operational plan to provide services and prepare for growth. NEC’s initial hope was that the income from the sale of recyclables would help to support the NEC. But every dollar earned was needed to invest in recycling equipment, the facility, and personnel. This was also a time when Humboldt environmental activists were blacklisted from jobs and were personally harassed. It was hard to let go of the positive “mom and apple pie” reputation of recycling. I assured them that the NEC could forever take credit for starting ACRC; and that ACRC would always acknowledge the founding relationship with pride. The NEC board of directors finally agreed and appointed a committee of Susie Van Kirk, Bill Devall, Thea Gast, and Pat Ferris to assist me in the legal requirements of ACRC’s incorporation.

I will always remember their encouragement and assistance in setting up by-laws, articles of incorporation, and getting all the legal forms filed with the State of California and the IRS. Bill Devall, in particular, had a clear vision that the recycling movement would become the recycling industry. Bill was an HSU Sociology professor and author of DEEP ECOLOGY. He explained that recycling was going to grow beyond what I could imagine at the time, and he wanted to make certain that environmental values would not be lost and would always be at the core of ACRC’s operations. To ensure this, we designed an organizational structure with overlapping boards of directors. A representative of the NEC would always be required to be a member of the ACRC board of directors, and an ACRC representative would always be on the NEC board. ACRC received its legal nonprofit organization status in 1978. Pat and Thea both served as Presidents of ACRC’s board of directors, and Susie served on the board for several years.

Thank you, Bill Devall. In recent years, I have remembered Bill’s predictions and think about how they have become reality. Core environmental values played an important part of the ACRC origin story and its services on the Redwood Coast for 40 years.

REMEMBERING ARCATA'S RECYCLING ORIGIN STORY

Maggie Gainer

Following Earth Day 1970, drop-off recycling programs run by volunteers sprang up in college towns all across the U.S. With the leadership of NEC’s first executive director, Wesley Chesbro, Arcata Community Recycling Center (ACRC) was started as one of NEC’s first and most prominent projects. It was positive and hands-on, something that the public could actively do.

Fast-forward a few years, I was hired by the NEC in late 1976 to direct ACRC. The NEC interview panel (including Wesley) knew that increasing public participation in recycling was crucial, and that was my strength. I started the job in early 1977 and was grateful to have a week of orientation and training with outgoing Executive Director, Karen Nardi. There was so much to learn about warehousing, processing materials according to buyer specifications, trucking regulations, local government, and increasing the commercial cardboard collection service for businesses. On Karen’s last day of training me, she urged me to convince the NEC board to allow ACRC to separately incorporate as its own 501(c)3 nonprofit. She had tried and failed. She explained that with the growth of recycling, the NEC’s decision-making structure could not keep up with ACRC’s needs for deciding the best systems, marketing the materials, hiring employees, financing, and large purchases of trucks and processing equipment. She said, “You’ll see what I mean when you give progress reports at their monthly board meetings.” Several months on the job and attending board meetings that went late into the night with political strategy debates, I was convinced Karen was right.

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Chris Jenican Beresford

My involvement with the NEC is quite different from others in that I was married to Tim McKay from 1976 through 1988. Our lives revolved around the environmental movement in those days. The NEC was housed in what is now the bike portion of Adventures Edge, or ATA to us old-timers. From there it moved up a few doors to 10th St., then to the corner of 11th and H where we even had a portable crib in the back for our daughter, Laurel. Finally, we purchased a building in the early 80’s thanks to Scott Sway and Felicia Oldfather, a building that we thought we would never fill up because it had so much space!

EcoNews production in those days was done with typed (by a volunteer) 3” wide strips, the size of columns, on which we rolled melted wax to adhere the columns onto each layout page, cutting them as needed to fit. We read the entire EcoNews backwards to catch any errors. To make corrections, we had to often retype portions of the copy (not just the word itself) so that it would fit correctly and then line it up so it was straight. We used zip line to designate between the stories, press on letters for the headlines, and graphics that we had to find in file folders for white space. We became quite adept at using exacto knives. Those of us doing layout lived in fear of EcoNews editor Sid Dominitz’s reaction to our page. If Sid didn’t approve of our layout, he made it quite clear, and we would take everything off the page and start over again.

In 1976, the NEC received funding for Tim’s and John Amodio’s positions through the Comprehensive Employment Training Act (CETA) for two years. When it came time to extend those two positions, their funding was not supported by the Board of Supervisors due to lobbying by the timber industry. Those two positions were the only ones not funded due to lobbying by the timber industry. When it came time to extend those two positions, their funding was not supported by the Board of Supervisors due to lobbying by the timber industry.

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As Executive Director. While the NEC had a strong base of support, we had to start doing more active fundraising.

The NEC used to have spaghetti dinners after the North Country Fair. These evolved into the All Species Ball. I would often spend the entire day making spaghetti sauce, salad, and garlic bread for 200 folks as well as getting ready for dinner service, while Tim worked the NEC booth on the plaza. The event would end with us cleaning until 2am.

In addition to the art auctions and plant sale, I also participated in the NEC Birdathons with Tim, even pregnant with Laurel. We would sleep in the infamous green Datsun station wagon (which I got from my folks) and get up in the early morning while it was still dark to start owling up above Smith River and end up in Arcata at the community forest for varied thrushes at dusk.

When I think of all the things that I have done in my life, participating in the Siskiyous Mountains receiving a wilderness designation is what I am most proud of. Just the fact that a bunch of kids who had no idea what they were doing helped to get this accomplished still amazes me to this day. We also worked against the completion of the Gasquet-Orleans, or G-O, Road, a road that was intended to connect Orleans and Gasquet, built from both ends to access timber but never finished in the final section. Tim and I went to Washington DC to lobby against the GO Road, even getting to meet with the infamous Phil Burton, who told us that he could not support completing the GO Road as he had already promised the timber to the MacNamara Peepe mill in Crescent City and he didn’t want it to end up in another mill. I testified before a House sub-committee in Weaverville for a wilderness designation for the Siskiyous in the wilderness bill, quite pregnant with Laurel, which was commented on as I, literally, waddled up.

After many years of political work on the Democratic Central Committee, I stepped down in 2012 and joined the Board of Directors of the NEC becoming the organization’s treasurer, a position that I still hold, as well as resident bureaucrat, occasional historian, and general worker bee. Not long after I joined the board, we found ourselves without any paid staff, other than two work-study students. With the help of Jen Kalt and our work study students, I figured out how and when to pay the bills, make bank deposits, bill the member group pages, bill for member group mailings as well as EcoNews advertisers and all the other administrative tasks that needed to be done, including training new staff. Quite the learning curve! It seemed as if Jen and I were in the office everyday dealing with keeping things running.

Currently, with the NEC once again staffed, I have been able to step back from many of the administration and daily operations. Now, I oversee the budget, monitor expenses, provide back-up and assistance as needed, help out with hiring staff, all related personnel issues and at NEC events.

I look forward to my continued participation.
LUCILLE AND DAVE GOT IN “GOOD AND NECESSARY TROUBLE”

Sue Leskiw

The late Congressman John Lewis described his involvement in the Civil Rights movement as getting in “good trouble, necessary trouble.” That phrase aptly applies to actions taken by Lucille Vinyard and Dave van de Mark during the 1960s and ‘70s, when they advocated for first the creation of and then the expansion of Redwood National Park (RNP), which occurred in 1968 and 1978, respectively.

[In fall 2014, I met with Lucille and Dave in their homes, in conjunction with the 50-year celebration of the founding of North Group Sierra Club (NGSC) and passage of the federal Wilderness Act. I turned on my recorder and let them reminisce. Those unstructured interviews form the basis of these vignettes.]

In 1964, Lucille and Dave made an odd pair: a Republican country club member in her mid-40s and a 21-year-old wildlife/botany student who originally came to Humboldt to pull green chain for a timber company. That fall, Dave put together a slideshow for NGSC and so began their collaboration to save the redwoods. “People thought Dave was my son,” joked Lucille. At one state Board of Forestry meeting in Sacramento, a local forester saw Lucille and Dave in the hallway and said “Anytime I see you two together, there’ll be trouble.”

Some of their exploits were scary. Dave would take photos from small aircraft. “We’d remove the door and fly very close to the treetops to get better pictures, breaking every safety rule,” Lucille recounted when, during consideration of RNP expansion, several U.S. Senators held a field hearing at the Eureka Veterans Hall. “Conservationists arrived early before loggers and their wives could fill the seats. Logging trucks circled the building throughout the hearing. Roughnecks were throwing paper and other things. Loggers’ wives stood on chairs and stomped their high heels. A man with a knife in his pocket stood so close to me that I could feel its outline. The hearing was raucous and getting ugly. Word came from the stage that conservationists waiting to speak should hand in their statements and leave one by one, via different doors.”

In 1967, Lucille and Dave traveled to Eureka Veterans Hall. “It was raucous and getting ugly. Word came from the stage that conservationists waiting to speak should hand in their statements and leave one by one, via different doors.”

In 1967, Lucille and Dave traveled to Washington, DC to testify on behalf of the nonprofit group, Citizens for Redwood National Park. “If any body helped save the redwoods, it was Dave and his camera,” opined Lucille. “He took photos of their beauty and their destruction alike. During a break in the hearing, poster-sized black-and-white photos were put up around the room. The subjects ranged from one trillium to an entire redwood.”

Henry Jackson, Senate Interior Committee chair, had asked timber companies to abstain from cutting trees within his 56,000-acre RNP proposal. “My photos proved that Louisiana-Pacific’s promise to Senator Jackson wasn’t true. The company even harvested on New Year’s Day. Jackson was upset, went on a rampage, and the timber companies pulled out after being caught red-handed in 1967,” Dave explained.

Local U.S. Congressman Don Clausen, working with timber companies, had proposed an inadequately sized park. He called Lucille out of a House Interior Committee meeting and told her that the hearing wasn’t going the way he wanted. Lucille replied that she didn’t travel 3,000 miles to support “your little string of beads” (a narrow strip along Highway 101).

In the five years prior to RNP expansion, “we could only watch and cry. Redwood Creek blocks were being clear cut. On a highlight trip, we counted the rings of a cut tree and found it was 1,002 years old and 270 feet tall. Visitors with cameras watched as two men with a cross-cut saw went to work. Sawdust looked like blood streaming out. When the tree fell, there wasn’t a dry eye. It hurt. It was the saddest thing I ever experienced and the memory still affects me,” said Lucille, who has been described as both “The Mother of Redwood National Park” and “That Awful Woman from Trinidad.”
WOMEN OF THE EARLY NEC

John Amodio, former NEC Executive Director

The early 1970's, when the NEC was founded, was a tumultuous time in America. “Liberation” was the common goal for an array of marginalized groups seeking greater recognition and equality. One of the more active and controversial was the movement by women to achieve full equality under the law and in all realms. At that time, it was the norm for women to do most of the work in community organizations, rarely as acknowledged leaders, but as the behind-the-scenes, essential volunteers without whom success was not possible.

Anne Richards, the wry Texas elected official and social commentator, summarized this greater challenge of succeeding as a woman when describing the phenomenal dance duo of Fred Astaire and Ginger Rogers: “After all, Ginger Rogers did everything that Fred Astaire did. She just did it backwards and in high heels.”

The NEC was not immune from the times, but it was also part of the change. The women of the early NEC not only served many of the traditional “women’s roles,” but were among its most important leaders. Being an outspoken environmental advocate “behind the Redwood Curtain” at that time when Big Timber dominated the regional economy and politics was daunting. Criticizing and actively opposing the long-established and deeply entrenched power structure was not for the faint of heart. Doing so as women made them even more prominent targets, and sometimes resulted in even more venomous attacks.

That there were so many women who contributed in so many ways, most of which were not recognized at that time, assures that any attempt to give credit now will be woefully incomplete, especially when relying on memories from fifty years ago. With sincere apologies to the many women not included in this tribute, let’s at least acknowledge some.

Two were virtually environmental saints through their steadfast and skilled contributions: Lucille Vinyard and Susie Van Kirk. While being remarkably different, they were the closest of friends and bedrocks in their unflinching leadership, in spite of the animosity they endured. Each of their lives of environmental and community service are now enshrined in the Humboldt Historical Collection at HSU.

Lucille Vinyard moved to Southern Humboldt from Santa Cruz as a Republican business woman. In time, she moved above Moonstone Beach. She became the voice and face of the Redwood Group of the Sierra Club for decades, starting as a key leader in the creation of Redwood National Park in the 1960s and continuing until her death. She worked on the full spectrum of environmental issues, from the major wilderness battles of the 1970s down to local planning issues. For those of us in the early NEC, she was a first-class role model who was always available to mentor us by sharing her vast knowledge of players and strategies, and a controlled passion that helped us stay focused on being effective rather than simply enraged. For her endless personal sacrifices on behalf of our environment, Lucille became the poster-child for anti-environmentalist hate in full-page ads railing against “Lucille Vinyard and her ilk.”

Susie Van Kirk embodied the “iron fist in a velvet glove.” Susie simply did whatever was required, virtually without recognition. She was the NEC Board Chairwoman during the Redwood Park expansion, when the NEC endured boycotts by businesses who stopped advertising in the EcoNews, threats of violence against staff and our store-front, and a successful timber industry campaign to cut off the NEC’s federal funding of nonprofits that enabled the NEC to employ both Tim McKay and myself. Faced with this elimination of our main source of funding, Susie calmly rallied our core community to keep moving forward, reassuring us all through her equanimity.

While almost forgotten, it is worth noting that the NEC women were actually renewing a legacy of woman-led preservation of the redwoods in the 1920s. How Humboldt women were the actual key leaders in the first successful preservation of the redwoods is revealed in extraordinary detail in a recent book, Who Saved the Redwoods?, by Laura and James Wasserman. Read it, and be grateful and inspired.

Their efforts inspired the 1919 Valedictorian of Eureka High School, Ru-Flo Harper Lee, to a lifetime of challenging and exposing the Humboldt “old-boy” network. She stood almost alone in opposing the construction of the pulp mills that would enrich two corporations at the expense of public health, for which she was attacked by an industry rep in the national Saturday Evening Post exclaiming, “we could stand twice the stench (from the pulp mills), if it would drive Ru-Flo out of town.” As her last courageous act, Ru-Flo, at the age of 78, testified in favor of Redwood Park expansion before a howling mob at the Congressional field hearing in Eureka in 1978. I was genuinely in awe of her, and was sickened to learn of vulgar calls made to her by those pretending to be me. She was not fooled at all, shrugging them off as just one more attempt to intimidate her.

Here are a few of the remarkable women who also made major contributions in the early years of the NEC, enabling it to more than survive but to thrive over the past five decades. I remember and revere them all with immense gratitude and love.

- Mary Abbot
- Chris Beresford
- Kay Chaffee
- Christie Lee Fairchild
- Pat Ferris
- Maggie Gainer
- Thea Gast
- Harriet Gray
- Suzanne Guerra
- Paige Meier
- Carol Monet
- Karen Nardi
- Sarah Parsons
- Nancy Reichard
- Connie Stewart
- Alex Stillman
- Andrea Tuttle
- Ruth Spowart

Connie Stewart, Wesley Chesbro, and Tim McKay at the NEC’s 30th Anniversary Celebration. Photo submitted by Mark Larson.

Kay Chaffey and husband, Keith, at the then-famous Berry Glen clearcut. Photo by Dave Van de Mark.
Persistence, Conviction and Citizen Science Lead to a Win for Spring Chinook

Caroline Griffith, EcoNews Journalist

On Wednesday, June 16, the California Fish and Game Commission voted to list Klamath spring Chinook salmon as threatened under the California Endangered Species Act. The listing came in response to a petition filed July 23, 2018 by the Salmon River Restoration Council and the Karuk tribe, and hinged on the recent genetic discovery that spring and fall Chinook are separate species, something the Karuk tribe had been saying for years. In the Karuk language, the two species even have different names: Spring Chinook is called ishyaat while Fall Chinook is called aama. This designation, which went against the recommendation of Commission staff, will increase protections, increase available funding for research, and reinforce the importance of removing dams on the Klamath and Trinity Rivers and other large-scale restoration projects.

The definition of “species” in relation to the Endangered Species Act has been debated for years and litigated by groups such as the Pacific Legal Foundation that would like to see decreased protections for wildlife, which they see as getting in the way of development. According to Craig Tucker, Natural Resources Policy Analyst for the Karuk Tribe, for many years the question of what constitutes a species has been almost philosophical because statute and science differ on the definition. “Conservation biologists could take a snapshot of a genome of one animal and compare it to another, but the snapshot was fuzzy,” says Tucker. “Now that the genome can be sequenced, really small differences can be noted. Very small genetic differences can constitute a difference in species.” For the Spring Chinook, that genetic difference was first noted by scientists in 2017.

Though the first petition to list Spring Chinook as an endangered species was in 2011, the effort to bring awareness to the issue began long before. In the late 1980s and early 90s, Karuk tribal members and residents around the Salmon River started to notice disturbingly low spring runs. According to Karuna Greenberg, Restoration Director at the Salmon River Restoration Council, people were used to seeing masses of salmon, but as run numbers dwindled below 200 people became concerned. Sharing and eating salmon was part of the local culture, and since part of rural culture is to deal with problems without going to outsiders for help, “Local people were noticing,” says Greenberg, “and were like, hey, what are we going to do? These are our fish, what are we going to do about it as a community?”

As a result, the Salmon River Restoration Council (SRRC) was born in 1992. “People wanted to take some responsibility to keep the last few fish from disappearing,” Greenberg says. Grassroots campaigns started popping up to bring awareness, including music, art (Poach Eggs, Not Salmon) and even a play written and directed by local, Petey Brucker. The play, “Salmon Ed”, brought together tribal members, fishermen, agencies, miners and other locals to play different roles which built connections between people who may have previously seen themselves as being on different sides of the issue. According to Greenberg, this changed the dynamic and made dwindling Spring Chinook numbers a community issue which people felt a responsibility to stop. “People decided, voluntarily, to stop overfishing.”

But overfishing wasn’t the only threat to the Spring Chinook; other human behaviors, including mining, logging, fire suppression and climate change-related drought were all affecting the salmon. As awareness grew, so did the desire to make the fish counts more official; locals wanted to get good data and have a real sense of how the numbers were changing so they could affect policy and get funding for restoration projects. The irony of the situation is that in order to get funding to study Spring Chinook and work on restoration projects, they need to be listed as endangered. And in order for them to be listed, there needed to be data to back that up.

Although the Forest Service had been conducting periodic dives to count the “springers,” as they are called by the locals, they were sporadic and not well funded. SRRC worked to recruit volunteers and then convince the Forest Service that volunteers were capable of doing the work. Since then, twice a year, 80 volunteers swim the entire Salmon River in a single day to survey the fish population and provide data essential to understanding the health and viability of the fishery. The Spring Chinook dive takes place in late July when fish are holed up in deep pools and near cool side streams, making it possible to actually count individual fish. This citizen science project, as well as the long-term water temperature surveys and watershed education programs that SRRC conducts in collaboration with local schools, have helped paint a picture of what needs to be done to help this species survive. One interesting finding of the water temperature surveys, which also corroborates Traditional Ecological Knowledge, points to the impact of fire and how smoke from fires can lower water temperatures, making them more habitable for salmon.

According to Greenberg, this citizen science and community involvement has been key in the fight to get Spring Chinook listed and recognized as an endangered species under California state law. “This community has been steadfast,” Greenberg said. “We were not of high hopes the day this listing came up. We had read the staff recommendation, and were absolutely glued to the hearing and the testimony. When the vote came in, we erupted in tears. It was such a powerful moment. We did not expect it. The fight was so long, we had such conviction and had pushed up that mountain over and over again. So much of that is due to regular people persisting and recognizing how important it is.”

As for the fact that science now validates Traditional Ecological Knowledge in recognizing that Spring and Fall Chinook are different species, both Greenberg and Tucker note that if ishyaat populations were healthy enough for us to do so, we would be able to taste the difference ourselves. And perhaps, now that they have been listed and protections and funding will become available for restoration, someday we will be able to do so. As Tucker says, “They are the best tasting fish in the Pacific Northwest, which should be reason enough to protect them.” For more information on SRRC’s citizen science projects and to get involved, visit srrc.org.
El miércoles 16 de junio, la Comisión de Pesca y Caza de California votó a favor de incluir el salmón Chinook de Primavera de Klamath en la lista de especies amenazadas debajo de la Ley de Especies en Peligro de California. La inclusión en la lista se produjo en respuesta a una petición presentada el 23 de julio de 2018 por el Consejo de Restauración del Río Salmón y la tribu Karuk, y se basó en el reciente descubrimiento genético de que los Chinook de Primavera y Otoño son especies separadas, algo que la tribu Karuk había estado diciendo durante años. En la lengua Karuk, las dos especies tienen nombres diferentes: El Chinook de Primavera se llama ishyaat mientras que el de Otoño se llama aama. Esta designación, que fue en contra de la recomendación del personal de la Comisión, aumentará la protección, incrementará los fondos disponibles para la investigación y reforzará la importancia de eliminar las presas de los ríos Klamath y Trinity y otros proyectos de restauración de gran escala.

La definición de “especie” en relación con la Ley de Especies en Peligro de Extinción ha sido objeto de debate durante años y de litigios por parte de grupos como la Pacific Legal Foundation, que desearía que se redujeran las protecciones de la vida silvestre porque lo consideran un obstáculo para el desarrollo. Según Craig Tucker, analista de políticas de recursos naturales de la tribu Karuk, durante muchos años la cuestión de lo que constituye un especie ha sido casi filosófica porque la ley y la ciencia difieren en la definición. “Los biólogos de la conservación podían tomar una instantánea del genoma de un animal y compararlo con otro, pero la instantánea era borrosa”, dice Tucker. “Ahora que se puede secuenciar el genoma, se pueden observar diferencias realmente pequeñas. Las diferencias genéticas muy pequeñas pueden constituir una diferencia de especie”. En el caso del Chinook de Primavera, esa diferencia genética fue observada por primera vez por los científicos en 2017.

Aunque la primera petición para incluir al Chinook de Primavera en la lista de especies en peligro de extinción fue en 2011, el esfuerzo por concienciar sobre el tema comenzó mucho antes. A finales de los años 80 y principios de los 90, los miembros de la tribu Karuk y los residentes de los alrededores del río Salmón empezaron a notar las preocupantes bajas poblaciones de salmón en la primavera. Según Karuna Greenberg, Directora de Restauración del Consejo de Restauración del Río Salmón, la gente estaba acostumbrada a ver gran números de salmón, pero comenzaron a preocuparse cuando la carrera de salmón desmamaba por debajo de 200. Compartir y comer salmón formaba parte de la cultura local, y dado que parte de la cultura rural consiste en afrontar los problemas sin acudir a la ayuda de los forasteros, “la gente local se dio cuenta”, dice Greenberg, “y se preguntó: ¿qué vamos a hacer? Estos son nuestros peces, ¿qué vamos a hacer como comunidad?”.

Como resultado, en 1992 nació el Consejo de Restauración del Río Salmón (Salmon River Restoration Council, SRRC). “La gente quería asumir alguna responsabilidad para evitar que los últimos peces desaparecieran”, dice Greenberg. Emprendieron a surgir campañas para concienciar a la población, con la música, el arte (Poach Eggs, Not Salmon) e incluso una obra de teatro escrita y dirigida por el local Petey Brucker. La obra, “Salmon Ed”, reunió a miembros de la tribu, pescadores, agencias, mineros y otros lugareños para que interpretaran diferentes papeles que permitieron establecer conexiones entre personas que antes se consideraban en lugares diferentes del problema. Según Greenberg, esto cambió la dinámica e hizo que la disminución del número de Chinooks de Primavera se convirtiera en un problema comunitario que la gente sintió la responsabilidad de detener. “La gente decidió, voluntariamente, dejar de pescar en exceso”. Pero la sobrepeca no era la única amenaza para el Chinook de Primavera; otros comportamientos humanos, como la minería, la explotación forestal, la supresión de incendios y la sequía relacionada con el cambio climático, estaban afectando al salmón. A medida que crecía la sensibilización, también el deseo de oficializar las cuentas de peces; los lugareños querían obtener buenos datos y tener una idea real de cómo estaban cambiando las poblaciones para poder influir en la política y conseguir financiación para proyectos de restauración. La ironía de la situación es que, para conseguir financiación para estudiar el Chinook de Primavera y trabajar en proyectos de restauración, es necesario que esté incluido en la lista de especies en peligro de extinción. Y para que estén en la lista, es necesario que haya datos que lo respalden.

Aunque el Servicio Forestal había estado realizando inmersiones periódicas para contar los ‘springers’, como los llaman los lugareños, estaban bien financiadas. El SRRC trabajó para reclutar voluntarios y luego convencer al Servicio Forestal de que los voluntarios eran capaces de hacer el trabajo. Desde entonces, dos veces al año, 80 voluntarios nadan todo el río Salmón en un solo día para estudiar la población de peces y proporcionar datos esenciales para comprender la salud y la viabilidad de la pesquería. La inmersión de los Chinooks de Primavera tiene lugar a finales de julio, cuando los peces se refugian en pozas profundas y cerca de los arroyos frescos, lo que permite contar realmente a cada uno de los peces. Este proyecto de ciencia ciudadana, así como los estudios a largo plazo sobre la temperatura del agua y los programas de educación sobre la cuenca hidrográfica que el SRRC lleva a cabo en colaboración con las escuelas locales, han contribuido a dibujar una imagen de lo que hay que hacer para ayudar a esta especie a sobrevivir. Un hallazgo interesante de las encuestas sobre la temperatura del agua, que también corroboran los Conocimientos Ecológicos Tradicionales, señala el impacto del fuego y cómo el humo de los incendios puede reducir la temperatura del agua, haciéndola más habitable para el salmón.

Según Greenberg, esta ciencia ciudadana y la participación de la comunidad han sido clave en la lucha por conseguir que el Chinook de Primavera sea incluido en la lista de especies en peligro de extinción de la legislación del estado de California. “Esta comunidad ha mantenido firme”, dijo Greenberg. “No teníamos muchas esperanzas el día en que se planteó la inclusión en la lista. Habíamos leído la recomendación del personal. Estábamos absolutamente pegados a la audiencia y a los testimonios. Cuando llegó la votación, lloramos. Fue un momento muy fuerte. No lo esperábamos. La lucha fue tan larga, teníamos tanta convicción y habíamos subido esa montaña una y otra vez. Muchos de eso se debe a que la gente normal persiste y reconoce lo importante que es”.

Ahora que la ciencia valide el Conocimiento Ecológico Tradicional al reconocer que los Chinooks de Primavera y de Otoño son especies diferentes, tanto Greenberg como Tucker señalan que si las poblaciones de ishyaat estuvieran lo suficientemente sanas como para comer, nosotros mismos podríamos probar la diferencia. Y tal vez, ahora que se han incluido en la lista y hay protección y financiación para su restauración, algún día podremos hacerlo. Como dice Tucker, “son los peces con el mejor sabor del noroeste del Pacífico, lo que debería ser razón suficiente para protegerlos”.

Para más información sobre los proyectos de ciencia ciudadana del SRRC y para participar en ellos, visite srrc.org.
Does Forest Service Have an Obligation to Clean Up Hazardous Waste?
New Lawsuit Launched Seeks to Compel Remediation of Public Land

EPIC

EPIC—together with our allies at the Klamath-Siskiyou Wildlands Center, Californians for Alternatives to Toxics, Northcoast Environmental Center, and Safe Alternatives for our Forest Environment—filed a formal notice of intent to sue the Forest Service for failing to clean up hazardous waste associated with trespass cannabis grows on Forest Service lands in California. At the heart of the lawsuit is a novel legal question: is the federal government obligated to remove hazardous waste on its property? By deliberately leaving hazardous waste in the forest, often without warning or marking, conservation groups assert that the Forest Service is putting the public and the environment at risk.

Trespass cannabis cultivation is routine on public lands in California and the Forest Service—the largest landowner in the state—busts dozens of grow sites per year. While trash and other solid waste is often removed from grow sites after law enforcement comes in, deadly pesticides, including some that are banned for use in the United States, are routinely left at the former grow site because of the cost and complexity of removal. This presents a legacy problem for humans and the environment.

“Our public lands should not be warehouses for toxic chemicals,” said Tom Wheeler, executive director of the Environmental Protection Information Center and the author of the notice letter. “The Forest Service has an obligation under the law to deal with hazardous waste left on their lands. Their failure to do so harms the environment and puts human lives at risk.”

Hazardous waste discovered yet left in the forest include carbofuran, warfarin, zinc phosphide, strychnine, methomyl, carbaryl, and aluminum phosphide. The risk to humans is acute. Take carbofuran for example. Carbofuran, a potent neurotoxic insecticide, is so hazardous that it can kill an adult human with just a drop —1/16th of a teaspoon—and is one of the most toxic carbamate pesticides ever produced. Carbofuran is found at approximately 32-34% of trespass grow sites in California. Often found in unmarked containers, like chemical sprayers and Gatorade bottles, simply picking up a bottle of carbofuran without gloves exposes a person to the poison. Carbofuran is so dangerous that as of 2009, there are no legally permitted uses for carbofuran. The risk is also not abstract, as law enforcement officers have been injured by pesticide exposure at trespass grow sites.

Hazardous waste also continues to make its way into the environment. Recent research shows that pesticide residue is commonly found in the blood of endangered species, such as the northern spotted owl and the Pacific fisher, so much so that the U.S. Fish and Wildlife Service has recognized toxicants associated with trespass cannabis production as a threat to these species.

The Forest Service is aware of this problem. In 2018, the Office of Inspector General at the U.S. Department of Agriculture, under which the Forest Service is nested, found the Forest Service was putting the general public at risk: “We found that Forest Service….does not always reclaim and rehabilitate marijuana grow sites after plants are eradicated….As a result, trash and chemicals such as pesticides and fertilizers are still present on these grow sites, thereby putting the public, wildlife, and environment at risk of contamination.” Worse still, the Forest Service “does not track the status of reclamation and rehabilitation activities at grow sites or consistently document marijuana plants eradicated from or hazardous materials found at these sites. Without these data, FS is unable to determine the presence, types, and locations of hazardous materials left on the national forests. Consequently, it cannot prioritize grow sites for reclamation and rehabilitation efforts to minimize the sites’ risk to the public and wildlife.”

By filing the notice of intent to sue, conservation organizations hope to forestall actual litigation by forcefully encouraging the Forest Service to budget and plan for the full remediation of all known grow sites on their lands in the state.

Conservation groups are represented by William Verick of the Klamath Environmental Law Center.

A trespass grow camp full of trash in the Shasta-Trinity National Forest. Regional Field Director of CROP, Jackee Riccio, stands in black in the background. Photo submitted by Jackee Riccio.
Big Foot Step #1
Provide food for your local wildlife by planting diverse native plant species. Native plants start the local food web and provide the most food for the most wildlife. Native plants also provide the correct foods at the correct time of year that our local wildlife depend on to feed themselves and their young, as well as nesting material and nesting sites. Native plants can sustain 35 times more birds and butterflies than non-natives!

Diverse Native Plants Support Diverse Native Insects
Insects are the most important food in the food web that sustain most other wildlife, by passing the energy from the sun captured by plants to the other species of the food web in the form of insect protein and fat. Wildlife that do not depend on native plants or insects for food eat the wildlife that do. About 90% of insects depend on specific native plants to reproduce. The interactions between the plants and insects determine the diversity of the wildlife community.

Big Foot Step #2
Provide a Water Source that contains water all year. A water source can be as small as a bird bath or bucket, or as complex as a large pond landscaped with native pond and wetland plants. Always provide easy entry and exits to the water source to eliminate the possibility of wildlife drowning. No need to worry about mosquitoes in a healthy habitat because other wildlife will use them as food, like dragonflies, frogs, bats and birds.

The 7 Bigfoot Steps in Creating Your Own Native Plant and Wildlife Sanctuary
By Monterey Caid, Owner of Lost Foods Native Plant Nursery, a local, non-profit dedicated to restoring native plant diversity and abundance.

RRAS Field Trips in August!
Sun. August 1st – 3p.m. This is the third of our monthly Women & Girls’ Birding Walks series. Our August Women and Gulls Birding Walk will focus on shorebirds at one of the most productive birding spots in Humboldt – the Arcata marsh! Take a turn about the tidal flats with Jude Power, who will lead this walk that will have you looking all plover the marsh for the diverse range of shorebirds Humboldt Bay supports. Shorebirds can be tricky to identify with their quick movements and mottled plumages, but this walk should provide a fun and collaborative space to practice and improve your shorebird ID skills!

Will you join us for this exciting, afternoon walk at 3pm Sunday, August 1st? For reservations and meeting location contact Janelle, at janelle.choj@gmail.com.

Sun. August 7th – 8:30-11a.m. Arcata Marsh with Rob Fowler.
Sun. August 28th – 8:30-11 a.m. Arcata Marsh with Larry Karsteadt.
Sun. August 29th – 9a.m. to noon. Join RRAS in partnership with Kayak Trinidad (kayaktrinidad.com) for an exciting morning viewing local seabirds from a kayak. We will ply the waters of Trinidad Bay with professional guides seeking out Marbled Murrelets, Pigeon Guillemots, Common Murres, Black Oystercatchers and more. All kayaks and gear are provided. Space is limited and reservations are required. Costs for this trip are $99/person to cover equipment and professional kayak guides. Contact Andrew Orohskes (andrew.rras@gmail.com) to reserve a spot on this sea birding adventure.

View rras.org for more details and how to register for all walks, or contact our Field Trips Chair, Janelle Choijacki at janelle.choj@gmail.com.

If you aren’t vaccinated please wear a mask. It is recommended that all participants maintain a 6’ distance.

RRAS Virtual Program Presentation
Please join us on Friday, August 13th, at 7 pm, for Changes in Nesting Bird Populations in the Los Angeles Area, 1995-Present.

With Daniel S. Cooper, Ph.D.

Bird populations, particularly in urban areas, are in constant flux, with some species adapting and thriving, and others declining. With colleagues, I recently investigated the role of ecological and behavioral traits for more than 50 species of nesting birds in the Los Angeles area using two datasets separated by over 20 years, the Los Angeles Breeding Bird Atlas (1995-1999) and newer data from eBird, an online platform archiving bird sightings that has been active since c. 2010. I will discuss trends in species, explore traits that appear to confer success in urban areas, and offer predictions as to which species – or types of species – will continue to thrive in urban and urbanizing southern California. I will also discuss species that declined during this time period, and offer suggestions for their conservation.

Daniel S. Cooper is a lifelong resident of southern California, and is regarded as an expert on the birds of the region. Through research and independent consulting, he has spent more than 20 years conducting surveys and analyzing bird populations from the deserts to the coast, including rare and protected species such as the California Gnatcatcher and the coastal Cactus Wren. Dan has served on many environmental advisory boards and committees, including most recently on the Oak Park – Park and Recreation Planning Committee. Since 2012, he and his family have made their home in Oak Park, where he enjoys the natural beauty and outdoor recreation opportunities, even if his two kids don’t.

Please visit our website, rras.org for the Zoom link.
President’s Column
By Gail Kenny

We are hosting a “catio” tour on Saturday, September 18th from 12-4. The tour will feature up to six cool catios in Arcata and McKinleyville. A catio is an enclosed outdoor patio where cats can safely experience the enrichment of the outdoors. This keeps the cats separate from birds and other prey they might harm and protects cats from diseases and injuries.

We are highlighting catios to educate and encourage the community about how to keep their cats safe, which also keeps birds safe from cats. Cats killing birds is number one on the list of human-caused bird mortality in the United States, even more than collisions with buildings and wind turbines. Over 2 billion birds a year are estimated to be killed by cats in the United States alone. Our pet cats have been domesticated from a blend of several small cat species over thousands of years. As a domesticated animal, they can no longer live on their own without human help. Since we domesticated them, it is our responsibility to take care of them and to also protect wildlife and the natural environment.

One of the ways to do this is to spotlight how people are living with pets while containing them. Indoor cats live longer and more healthy lives. Cats can get outdoor stimulation by hanging out in patios and by being walked on leashes outside. This also helps pet owners have more interactions with their cats, providing enrichment for cats and their owners.

What is fun about a catio tour is you get to see all the shapes and sizes of catios and get ideas on how to create your own catio. When we had the bird friendly yard tour a couple of years ago, one of the gardens featured catios that were made with repurposed and often free materials. It doesn’t have to cost a lot of money to create a catio. Of course, there are ready-made catios you can purchase, or you can design your own.

We will share all the details about the in-person catio tour in the September issue of The Sandpiper. Watch rras.org and local media, for more information. Admission is $10, and tickets will be available soon. Also, volunteers are needed for set-up, ticket-selling, take-down, greeters, photography, etc. Please contact Harriet Hill at harrieth6@gmail.com to sign up for volunteering.

Wigi Wetlands Clean-up Carousel!
By Hal Genger

Need a reason to get out of the house for a while and be in nature? Wigi Wetlands is an easy place to explore and help birds at the same time! Redwood Region Audubon Society (RRAS) assumed responsibility for organizing a monthly clean-up for this region of the Humboldt Bay Trail several years ago. Grant money was procured to purchase tools and hire a part time coordinator for this purpose and now volunteers meet every month to improve the area for birds and other wildlife. Wigi Wetlands is the portion of the Humboldt Bay Trail behind the Bayshore Mall.

The paved trail passes a variety of habitats for viewing plants, and animals, especially birds. Willows and alders grow along the trail and provide good views of Yellow-rumped and Townsends Warblers, and Chestnut-backed Chickadees. The trail travels near several small freshwater ponds which are a good site for aquatic birds such as Green Herons, Great Blue Herons, and Mallards. Portions of the trail offer viewing access of salt marsh vegetation and Humboldt Bay – an area that provides good views of gulls, Brown Pelicans, and Double-crested Cormorants on the wharf pilings. Shorebirds (e.g., Marbled Godwits, Black Turnstones), are visible on the low tide regions, and scaups, Widgeon, Eared Grebes, and Surf Scoters can be seen floating on the water. Between the trail and the bay lies a region suitable for dune vegetation. This is a good open area to look for White-tailed Kites, and Northern Harriers. Western Meadowlarks and House Finches are common birds found in the lower vegetation. Much of this area has been taken over by invasive species which have shaded out the native vegetation that birds rely on. This is the region where RRAS is doing most of its restoration and invasive species removal.

Volunteers meet at 9a.m. in the parking lot behind Walmart at the Bayshore Mall in Eureka, for monthly cleanups. We have been concentrating on the removal of broom, but also work on removing Pampas Grass, Fennel, Himalaya Berry, Ice Plant, Sweet Willow, and ivy. We go after large plants during the non-nesting season and smaller plants during nesting season so we don’t disturb nesting parents and their chicks. In some areas, native vegetation (e.g., Coyote Bush, Angelica, Yarrow, Owl’s Clover) are returning. These are much better plants for native animals to thrive in their habitat.

So, if you need something to do on the fourth Saturday of the month from 9-11 a.m., how about showing up at Wigi Wetlands to help remove invasive vegetation, pick up trash, and meet other wildlife-lovers? We provide gloves, tools, snacks, and good company! Please contact the coordinator Jeremy Cashen at (214) 605-7368 or jeremycashen@yahoo.com for information on volunteering.
Big Foot Step #3
Provide cover for wildlife to escape extreme weather or to hide and escape from predators. Planting native evergreen shrubs and trees can provide cover all year. Cover can also be made with yard waste by building a brush pile, wood pile or rock pile that remains undisturbed. The larger the spaces in the pile the larger the species that can use it. Even small piles can provide valuable cover for many beneficial species, using natural rock, recycled concrete and pottery. No black asphalt!

Brush/Wood Pile:
Use recycled chemical-free wood, logs, and trimmings from trees and shrubs. Rock piles and brush piles are used by many birds, small mammals, reptiles, amphibians, and beneficial insects including butterflies, to nest, hibernate, hide, find food and shelter.

Big Foot Step #4
Provide places for wildlife to nest and raise young. Create brush piles and rock piles that remain undisturbed and locate them in sun and/or shade. Create a snag, or leave a dead tree standing or laying on the ground which will benefit many different species over time. Nest boxes can be made and placed in the correct location depending on the species needs. Plant a patch of thorny native plants that provide protection to the nest from predators.

Dead Trees and Downed Wood
Hundreds of species of wildlife use downed wood (logs, snags, stumps, and rounds) for nests, dens, food, cover to rest, and to get sun. All rotting wood can host insects that provide valuable food for wildlife. Use downed wood on your property as borders for paths and gardens or place them in the landscape.

Big Foot Step #5
Eliminate the use of pesticides and other chemicals that can harm wildlife. Even organic pesticides can kill beneficial insects like butterflies, bees and ladybugs. Instead use native plants that attract beneficial insects which feed on the pest insects that might be damaging your plants. By planting diverse native plants and making diverse habitats you can recreate a healthy ecosystem that will keep pests and disease in check naturally.

Observando Aves Con Mujeres
Por Daisy Ambriz-Perez
Me la pase de maravilla caminando a través del bosque del Area de Conservación de las Dunas y Humedales de Samoa. Estábamos rodeadas por grandes helechos, zarzamoras, y grandes pino de playa. Oíamos el famoso canto en espiral del zorzal de anteojos en el fondo, pero desafortunadamente nunca llegamos a ver uno de cerca. Veníamos el camea, un pajarto chiquito y carismático, con mucha frecuencia. Un curioso camea estaba a sólo un pie de distancia de una de una de nuestras. Vimos vareas golondrinas que parecían estar disfrutando de la fiesta de los mosquitos gordos que pululaban a nuestro alrededor. Fue una experiencia muy hermosa. Me encantó sentirme cómoda y apoyada por el grupo de mujeres.

Right: Samoa Dunes and Wetlands, by Mike Cipra
Friends of the Dunes.

Birding With Women
By Marliese Tollner
On Sunday July 11th, the second of RRAS’s Women and Girls’ Birding Trips, our group explored the Friends of the Dunes (FOTD) stewarded, Samoa Dunes and Wetlands, with leader, Daisy Ambriz-Perez. Being fluent in English and Spanish, Daisy was able to provide information in both languages as we explored the area off Coper Lane. As is typically we heard more birds than we saw so we were fortunate to have not only Daisy, but Annette Lesher, with the group, since they were able to identify most of the birds by songs and calls. Daisy and others also provided information about the plants along the trail which was just as interesting to me as learning the birds! Due to the nature of sand dunes, we also enjoyed identifying a variety of freshly-made animal tracks. Overall, the experience was really nice – one of comradeship and a shared love of nature among all participants.

For more information, visit Friends of the Dunes website at www.friendsofthedunes.org/.

MAMU’s receive Federal Protection in Oregon!
Submitted by Andrew Orahoske
On July 9, 2021, the Oregon Fish and Wildlife Commission approved a petition to give Marbled Murrelets more protection by reclassifying them from threatened to endangered under the state’s Endangered Species Act (ESA). The plight of the Marbled Murrelet is synonymous with decades of industrial logging that have devastated the forests of California and the Pacific Northwest.

Meanwhile, the Murrelet had been listed as Endangered under the California ESA since 1992, and listed under the federal ESA as threatened since 1992. Despite these listings, actual on the ground protection for Murrelet nesting habitat has continued to be inadequate throughout the species range. Currently, the State of California is logging recovering older redwood forests in Jackson State Forest in Mendocino County, with some trees over 200 years old being targeted for destruction. In a climate crisis, it’s time to pay attention to the Murrelet’s habitat needs.

Rolling Meadow Cannabis Ranch Lawsuit
Redwood Region Audubon Society has joined the Rolling Meadow Cannabis Ranch, LLC commercial cannabis project lawsuit along with the Northcoast Environmental Center and Citizens for a Sustainable Humboldt. The initial study and draft mitigated negative declaration by Natural Resource Management Inc. (NRM), relies on conclusions based on unsubstantiated assumptions to arrive at a statement of no significant impact with regard to birds. We are concerned about the impact of this project on species such as Golden Eagles, Grasshopper Sparrows, and Savannah Sparrows in the oak woodland habitat. The cumulative impacts of the project, in combination with other projects, including impacts to groundwater resources, biological resources, and wildfire risk, were not adequately analyzed. The lawsuit is asking for a full Environmental Impact Report for the project.

www.yournec.org/rolling-meadows-lawsuit/ for more information.
The Little Red Shack – A trip back in time...

By Gary Friedrichsen

“If these walls could talk, half of Eureka would have to move out of town tomorrow.” So spoke one of the previous owners after I had taken up residence in the little shack, built at the mouth of Jacoby Creek toward the end of the Korean War, by local duck hunters. By the time I was involved with the club, the active owners included Roy Guthrie and his brother Rollo from Arcata, and Paul Cook of Eureka.

When I returned to Humboldt in 1970, after a tour in the Army, my good friends, Tim Osborne and Laurel Beisner, were living in the cabin while completing their degrees at HSU. I had been invited to dinner and asked if I would like to take over the cabin when they left. The original owners had stopped using the shack and begun letting students live in the club’s cabin in turn for protecting the cabin and keeping other duck hunters out of their duck blinds.

Around 1974, the U.S. Fish and Wildlife Service began their search for properties around Humboldt Bay and they found willing sellers among the hunt club members. I believe theirs was the first parcel that was purchased for the fledgling Humboldt Bay National Wildlife Refuge.

The cabin had no running water, no electricity, and no proper sewage but it did have natural gas. There was also a telephone line but that’s where the amenities ended. When I moved in there was a small Franklin wood stove and a 2’ x 4’ gas heater, a three burner cook top and a broken water well pump that had provided water until the salt water broke into the system. We had to haul our water in three five-gallon jugs and use that water for drinking, cooking, and rinsing dishes.

Tim had left me some furniture, including the dinner table we have to this day, and an antique Servel refrigerator that had a freezing compartment large enough for two ice cube trays. The cabin had been piped with three gas lamps. To this I added three Aladdin kerosene lamps and eventually a large double mantled street lamp that came from Magic Mountain Amusement Park, a gift from my father who had been an electrician wiring the park. This light provided loads of light as well as warmth. Fortunately, the cabin walls were board and batten on the outside and tongue and groove redwood on the inside with no insulation so the air movement kept us from asphyxiation.

As time went on the refuge went through a number of managers and somewhat languished until the McBride family finally agreed to sell their large ranch headquarters in south bay. It was after the acquisition of this property that we began to hear the distant drums of eviction. By the 1980’s I had finished my biology degree at HSU and married my wife, Jan. We both volunteered for the refuge and worked on a number of restoration projects mostly on revegetation on Salmon Creek but we were warned repeatedly that our tenure in the shack was likely coming to an end.

I will say that the shack was really quite cozy. Most people stopping by for a visit were surprised at how quiet it was considering the close proximity to Highway 101. But it was more like a soft grey noise that was easily tuned out until the rumble of a passing train. The day-to-day routine was pretty normal save for the lack of yard work and keeping abreast of the diurnal tides that would inundate our parking area and force us to reposition the vehicles out by the high point next to the former billboard.

The “shack” gained national recognition after Kenn Kaufman of bird guide fame wrote his memoir “Kingbird Highway.” The book describes Kenn’s early days hitch-hiking across America at seventeen, birdwatching and setting up his route for attempting a “big year.” He had run into our friend, Rich Stallcup while birding south of Monterey, California, and Rich had directed him to the “little red shack” on the highway south of Arcata. Unfortunately for Kenn he arrived in Arcata at 2:00 AM one very foggy morning. He had been let out by his ride just above Gannon Slough and in the fog mistook another hunting cabin that had fallen into the bay for our shack. Tired and thinking we must have moved out; he bedded down by the tracks and got a bit of sleep only to awaken and look south to where our shack stood in the early light. He walked up to our front door and stammered “I guess I slept in the wrong place!” Laurel took him in and later that day brought him to join Tim, Dr. Stanley Harris, and myself as we were completing a “big day” birding event.

The Cabin became quite the mecca for birdwatchers in the 70s and 80s. Several friends from the bay area would come up for northern birding and pelagic trips and spend the night, usually after a meal at Mona’s Mexican restaurant on south G St. Many times, there were 10-15 hippie birders sprawled on the floor awaiting the next day’s activity. Thanks to Tim’s early efforts to record birds seen around the property and then my continued tenure of the “list” we boasted a total of 212 species. Some of the rarities included Hudsonian Godwit, Buff-breasted Sandpiper, Sharp-tailed Sandpiper, Black-headed Gull, and Black Vulture. Since our departure other birders continue to find treasures at the mouth of Jacoby Creek. A small sample includes Crested Caracara, Bar-tailed Godwit, Little Gull, Red-necked Stint, and Nelson’s Sparrow.

Jan and I finally received our “eviction notice” from U.S. Fish and Wildlife in 1998 but it took us another year to complete the purchase and sub-division of our new property in Sunny Brae before we gave into their demands. I had lived in the cabin for thirty years and Jan had been with me for half of that time. It was home and very difficult to give up. But, on December 23rd, 1999 we closed the door for the last time and handed over the keys to the Humboldt Bay National Wildlife Refuge Manager.

Many great parties, holidays, and crab feeds were held in the cabin and I hope the previous owners approved of our holding up their traditions to the end.

All photos of the Little Red Shack courtesy of Gary Friedrichsen.
Clam Beach Pollution Mystery Solved?

Jennifer Kalt, Director

Last month, Clam Beach landed on Heal the Bay's "Beach Bummer" list of California’s most polluted beaches yet again, getting an ‘F’ for water quality on the 2020-21 Beach Report Card. This is the seventh time in eleven years that Clam Beach ranked in the top ten worst beaches in the state for fecal indicator bacteria. But this year, we have a better sense of the source of this type of pollution thanks to a new study by Dr. Jeremy Corrigan. He has been working on this problem for years along with the Humboldt County Department of Public Health, Regional Water Board, and Baykeeper staff and volunteers.

These bacteria are indicators of potential harmful pathogens that include viruses. At certain concentrations, these pathogens can cause gastrointestinal distress (nausea, vomiting, diarrhea) or infections in exposed wounds in surfers and swimmers. Young children are especially vulnerable, since they are more likely to swallow water while playing.

Fecal pathogens originate in the guts of warm-blooded animals. They get into streams and ocean waters via polluted runoff (known as stormwater) that flows over land, streets, and parking lots into storm drains. They also get into Humboldt Bay, requiring oyster growers to stop harvesting after major rainstorms. Gut bacteria die once they are outside the bodies of their host animals, although viruses are longer-lived. Because North Humboldt Bay (Arcata Bay) is rigorously tested to be sure it’s safe to eat raw oysters grown there, we know these pathogens are present at very low levels in the bay when it hasn’t rained in a few days.

The County Department of Environmental Health has been monitoring several beaches for fecal indicator bacteria since 2003. Clam Beach, Moonstone, Luffenholtz, Old Home, and Trinidad State Beach are all on the Clean Water Act 303(d) list as “impaired” due to bacteria pollution. This year, Heal the Bay gave ‘B’ grades to Moonstone and Trinidad State Beach, while Luffenholtz got a ‘C’.

Using genetic markers to detect bacteria from humans, cattle, dogs, and birds, Dr. Corrigan’s research identified birds as the primary source of pollution at Clam Beach. This is good news in that fecal bacteria from birds are generally less likely to cause water-borne illness in people when compared to human sources — but as with most scientific studies, questions remain. For example, we still don’t know how much these pathogens vary with season, since the samples were collected in an 11-hour period in August 2020. In addition, this fairly new field of science is still evolving rapidly. A December 2020 publication determined that sites with both bird and human bacteria pollution may pose greater health risks to people than previously understood.

Dr. Corrigan and his team also studied Strawberry Creek upstream from Clam Beach, collecting samples from thirteen sites in the watershed over an eight-week period. These results point to cattle as the main source of fecal pathogens. Just a few bird and dog markers were detected, with even fewer from humans. Although residences in the watershed rely on septic systems for treating human waste, this study does not point to septic systems as a source of bacteria pollution.

While Clam Beach got an ‘F’ for water quality near the mouth of Strawberry Creek, bacteria levels near the mouth of the Mad River were consistently so low that it got an ‘A+’ this year. One might wonder how water quality can vary so much in such a short distance, especially since there seem to be just as many (if not more) birds near the Mad River mouth. But the volume of water flowing from the Mad River is so much greater that it’s likely that it pushes the polluted water out into the ocean much faster and further than Strawberry Creek ever could.

Additional studies are needed to identify the sources of water pollution at Moonstone Beach, Little River and other beaches. Streams that drain into North Humboldt Bay’s oyster-growing areas are also in need of source identification studies. One is currently underway in Jolly Giant Creek in Arcata, which had quite a few hits for human pathogens in a 2016-18 study led by the North Coast Regional Water Quality Control Board.

Regardless of the sources, you can avoid exposure to bacterial pollution by swimming and playing in the surf away from creek mouths and stormwater discharge pipes – this is a good rule of thumb wherever you are. Another general rule is to avoid contact with water for a few days after major rainstorms.

You can find links to Dr. Corrigan’s published study, the 2020-21 Beach Report and other info on our website at www.humboldtbaykeeper.org.

In June, we were thrilled to be aboard the Madaket for the first time since 2019! Thanks to Centro del Pueblo for serenading us on a lovely tour of Humboldt Bay. Photo by J. Kalt.
War on Wild Horses on Northeast California’s Devil’s Garden Plateau

Felice Pace, Redwood Chapter Grazing Chair

Over recent decades the number of reporters and editors delivering news to Americans has declined sharply. Staff no longer have time to fact check claims made by spokespersons and in press releases. As a result, misleading and false information is being published as if it were verifiable fact.

It is with those thoughts in mind that I set off in early June to visit Northeast California’s Devil’s Garden Wild Horse Territory. Wild horses have been in the news and in the crosshairs of the western livestock industry. Was the “overpopulation” of wild horses being claimed by public land managers true on the Devil’s Garden and, if so, was land and water quality being degraded?

The War on Wild Horses

During the Trump years, reports issued from federal agencies claimed that wild horses had multiplied uncontrollably, were devastating public lands and, consequently, had to be drastically reduced. Thousands of wild horses were rounded up, removed from public lands and offered for adoption for as little as a dollar per horse. Advocates fear that many adopted horses end up slaughtered for meat in Canada where consuming horse meat is legal.

Enacted in 1971, the Wild Horses and Burros Act (16 USC 1331-1340) “directs the Bureau of Land Management of the Department of the Interior and Forest Service of the Department of Agriculture to manage such animals on public lands under their jurisdiction.” But while the agencies designated wild horse territories as directed, they also allowed large numbers of cattle and sheep to graze the same territories. Now those agencies blame the horses for overgrazing, riparian and water quality degradation.

Claims of serious damage to public land and waters are not exaggerated, but horses are not the main culprit. There are many more cattle and sheep grazing those territories than there are wild horses. Furthermore, research shows that horses, like native pronghorns and elk, range widely, while cattle mainly graze, loaf and trample riparian areas and wetlands.

Wild horses are in the news and in the crosshairs of the western livestock industry. Was the “overpopulation” of wild horses being claimed by public land managers true on the Devil’s Garden and, if so, was land and water quality being degraded?

The Devil’s Garden Wild Horse Territory

The Modoc National Forest’s wild horse territory is located on the Devil’s Garden Plateau, a 258,000 acre area averaging 5,000 feet in elevation. Devil’s Garden is part of Northeast California’s Modoc Plateau, a vast area of lava flows that includes many square miles of juniper and sagebrush steppe as well as dry forests dominated by Ponderosa pines. Depending on elevation, annual precipitation varies from as little as 5 inches to as much as 20 inches per year.

The plateau has a few streams flowing within riparian corridors bounded by lava walls, as well as wetlands of various sizes formed around emergent springs. Several smaller springs have been dug out to create waterholes.

Judging from direct observation as well as cattle and horse droppings, grazing use is concentrated around springs and other wetlands. Cattle droppings were much more numerous in those locations as compared to horse droppings. This confirms what researchers have found: cattle spend between 40% and 80% of their time on public land grazing within preferred riparian and wetland locations. Horses, on the other hand, range widely and do not graze within riparian areas for long periods.

I plan to travel again to the Modoc’s wild horse territory this fall at the end of the grazing season. It is already clear, however, that conditions there parallel what others have found on public lands where wild horses are present. Unlike what has been reported by most media outlets, the lack of grass and damage to riparian areas, wetlands and water quality is mainly the result of livestock grazing.

An Historic Irony

You may wonder how wild horses, which went extinct in North America millennia ago, came to occupy western public lands. Today’s wild horses are descended from horses ranchers released on public land along with other livestock during earlier times. Horses were needed to work livestock, plow, haul hay and carry people.

By the 1930s, however, tractors and trucks were rendering horses unneeded for most ranch work. Furthermore, times were tough; the Great Depression drove many to abandon farms and ranches for city life. Ranchers abandoned horses by simply neglecting to bring them to the home ranch for winter.

It is descendants of those abandoned horses which form today’s robust wild horse herds. And it is the descendants of those who abandoned the horses who these days clamor to have descendants of their grandparent’s horses removed from public land at taxpayers’ expenses.

I’m against removing them. Let today’s ranchers bear the karma their ancestors’ abandonment of horses created. Better yet, let’s remove the cattle whose grazing behavior is incompatible with the health of public lands and waters.

Let the horses run; wild and free from persecution.

Meeting Announcement
Share your ideas on public lands as carbon reserves, proposed aquaculture on the Samoa Peninsula or any other topic by joining the North Group’s monthly video meetings. For meeting access directions contact Gregg Gold at greggjgold@aol.com or 707-826-3740.
Summertimetime and the Living’s Easy without Plastic

Jess Barger, ZWH Projects Manager

You may be familiar with the statistic that about 10% of plastic waste generated in the U.S. every year is recycled. One type of plastic waste that continues to grow is plastic packaging. This includes items like plastic bags, drink bottles and clamshells. The EPA reported in 2018 that over 10 million tons of plastic packaging ended up in the landfill.

One of the conveniences of plastic is that it’s lightweight, making it easy to carry when you are, for example, hiking out to the beach or river this summer. It’s hard enough juggling the dogs, the kids and your bags, let alone a bunch of glass containers! So when you are packing a picnic lunch and want it to be as waste-free as possible, consider these ideas!

For short term food storage, wrap sandwiches in a clean towel or handkerchief. This can also double as a napkin! If you don’t have reusable bags you can also use fabric to carry snacks by tying the corners together. Keep it classic without plastic by making some lemonade from scratch, and freeze it a little to avoid picking up a plastic bag of ice. This may be a good time to invest in a large stainless steel insulated bottle and some small cups. You can also find metal and reusable plastic cups at many of our local thrift shops!

If you are serious about plastic waste, you’ll have to forgo your bag of potato chips and replace them with some bulk pretzels or nuts for a salty snack. However, this is easier said than done. If you remember your geometry lessons, you may know that bigger objects have a higher volume to surface area ratio. So if you are going to purchase a bag of chips, family sized bags will save you some plastic compared to multiple smaller bags. When we can’t reduce our plastic, the next best thing is to reuse it. Chip bags that have been opened carefully can be flipped inside out, washed and used as gift bags!

When you meet up with your friends for a day at the beach or a river camping trip, encourage each other to be plastic-free. Wow your family with your homemade dips and a fruit salad made from the delicious local produce we are able to pick up at the farmer’s market. If you use plastic, make sure it’s durable and washable for use many times. For more plastic-free living suggestions, contact zerowastehumboldt@gmail.com. Most importantly, enjoy our beautiful Redwood Coast while the weather is still cooperating, and leave no trace.
Food Holds The Power To Heal Or Harm

Tamara McFarland

Food holds power. The power to heal or to harm. To connect or to divide. To restore or to exploit. With every bite we take, we register a tiny vote for the world we want to live in.

For many of us, decisions about what to feed ourselves and our families are outside of our independent control. If you live under food apartheid, it is tremendously difficult to gain regular access to nutritious foods. (Note that I use “food apartheid” rather than “food desert,” because a desert is a natural phenomenon, whereas apartheid is a human-created system.) If you work three jobs to pay rent, it is hard to find time to cook from scratch. If you don’t have access to land, you cannot grow a garden.

Disparities around food access did not arise out of thin air; they are a result of decisions made by people, and they can be improved – and ultimately eliminated – by people.

• For many Indigenous peoples, knowledge about – and access to – traditional foodways have been violently taken away through colonization. When California was colonized, settlers not only killed many Native peoples, they also reduced food access by disrupting traditional ecological management practices. (Dr. Cutcha Risling-Baldy, 2021)
• During the Spanish Mission system, Native people were prohibited from eating their traditional foods. (Note that I use “food apartheid” rather than “food desert,” because a desert is a natural phenomenon, whereas apartheid is a human-created system.) If you work three jobs to pay rent, it is hard to find time to cook from scratch. If you don’t have access to land, you cannot grow a garden.

To overcome these huge structural barriers, we must empower individuals and communities to meet their own needs, and we must think - and work - both big and small. From federal and state food policy to community action and individual choices, there is important work to be done.

• We must support and uplift Native voices, and support the work that local tribes are doing towards food sovereignty. Locally, check out the Potawot Garden, the Yurok Tribe, the Native Food Sovereignty Lab at HSU, Blue Lake Rancheria and the Klamath-Trinity Resource Conservation district and the Wiyot community garden.
• If you are an uninvited guest on this land (like I am), consider paying a voluntary Honor Tax to the original people whose land you inhabit.
• Support efforts to restore land to Indigenous peoples, BIPOC farmers, and community land trusts.
• Support legislation that strengthens workforce protections for farm and other food system workers.
• Eating with climate justice in mind is about shifting to a region-based diet. You may need to change your approach to menu planning to reflect what’s in season, rather than relying on production somewhere that’s enjoying summer during your winter. This keeps the carbon footprint of your food much lower.
• Gardening - either at home or in a community setting - is one of the most powerful tools at your disposal. It doesn’t get more local than your own backyard. This mini garden was installed in Loleta by Cooperation Humboldt volunteers. Photo source: Tamara McFarland

The topic of food justice and its intersection with racism, environmentalism, poverty, and worker rights are explored in greater depth in Cooperation Humboldt’s publication, the Humboldt & Del Norte Community Food Guide, which is available for free at local newsstands and on Cooperation Humboldt’s website (www.cooperationhumboldt.org).

If you want to get involved in harnessing the power of food please reach out. I can be reached at tamara.mcfarland@cooperationhumboldt.com.
Get Ready for Coastal Cleanup Month 2021!

Ivy Munnerlyn, Coastal Programs Coordinator

Well, folks...it’s that time of year again! At the NEC, August means one thing: Coastal Cleanup Day is right around the corner! After a challenging year, we couldn’t be more excited to get back out to the beach, park, street, or trail with all of you. For 42 years, the NEC has been proud to coordinate Coastal Cleanup Day in Humboldt county, the place where it all began.

Coastal Cleanup Day is now a worldwide event, but it has its origins at the NEC. In 1979, community members Joe Abbott and Ann Morrissey got the ball rolling with their wildly successful Beach Beautification project, which eventually became our Adopt-a-Block and Adopt-a-Beach programs. The California Coastal Commission took notice, and in 1985 Coastal Cleanup Day was born. Today, the event takes place all over the world with thousands of volunteers collecting millions of pieces of trash. The last few years have seen some changes to Humboldt’s Coastal Cleanup Day. In 2019, the NEC decided to take a stand against single-use plastics by transitioning to a zero-waste event. Instead of plastic bags and gloves, volunteers could borrow 5-gallon buckets and gardening gloves generously donated by local businesses. 2020 brought its own challenges, and organizers across the country opted for a month-long, dispersed approach focusing on smaller neighborhood cleanups.

This year, we’ll be taking the best elements from the last few years and combining them to create a month-long event full of prizes, citizen science, and coastal stewardship. Cleanups will take place every weekend in September, which we hope will allow for more flexibility and participation. Volunteers are encouraged to fill out a Cleanup Results Reporting Form for every cleanup they attend, which will automatically enter them into a weekly prize drawing! Prize categories include Most Pieces of Trash Picked Up, Most Frequent Volunteer, Largest Item Picked Up, and Best Photo Submitted. The more cleanups you do, the more times you will be entered to win!

Coastal Cleanup Month 2021 also takes inspiration from 2019’s event, and will once again be going zero waste. Buckets and other cleanup supplies from the NEC will be available for volunteers, but we also encourage you to think creatively and find reusable cleanup supplies around your house.

As in previous years, data collection is a key element of Coastal Cleanup Month 2021. Citizen science is an important part of Coastal Programs at the NEC, and this event is a perfect opportunity to collect data about the trash we see on our streets and beaches. Our Coastal Program’s staff and volunteers track marine and neighborhood debris to find local waste patterns (what kind of trash is being found and where) so we can advocate for waste reduction solutions in our community. If you haven’t used our new data collection app yet, head to our Trash Trackers webpage (yournec.org/trashtrackers) to learn more. We’ll also have a paper data card available, as well as our new Marine Debris Identification Guide to help with tricky beach litter.

Coastal Cleanup Day is the single largest volunteer event in the world, and we’d love for you to join us this year! Head to our website to sign up, donate, and learn more about the fun prizes and things we have in store for you all in September. With your help, Coastal Cleanup Month 2021 will be our best year yet!
Working Together On Working Together
The 'Prosocial' method for building cooperative groups

Michael D. Pulliam

Why do people cooperate together? How can you help a group you care about to function well instead of stalling out to disengagement? How can our society cultivate more supergroups like networks of food cooperatives, coalitions of environmental organizations, or the United Nations? There is one answer that’s actually pretty straightforward, although as you might expect it’s easier read than done. One of the fundamental challenges of social life is how to balance people’s individual needs against the conflicting needs of the ever-growing collective. In their book Prosocial: Using Evolutionary Science to Build Productive, Equitable, and Collaborative Groups (2019), Drs. Atkins, Wilson, and Hayes explore the key principles and common-sense guidelines that have helped untold generations of people work well together—and can help us realize a more just and sustainable future.

Prosocial is part evolutionary science, part social science, and part self-help (or rather, group-help). The foundational ideas of the Prosocial method come to us from the late Dr. Elinor Ostrom, who received the 2009 Nobel Prize in Economics for her work on ‘the commons’: how do groups manage a common resource (like a watershed, forest, or pasture) without exhausting it? Modern thinking has typically hinged on two solutions: the resource must be privatized so a property owner can oversee it, or it must belong to the public sector so an official agency can regulate it and the people who use it. Dr. Ostrom traveled the world to visit communities who depend on exhaustible resources and she observed something different. Ostrom’s 8 Principles, an interlocking set of community norms and agreements, form the basis of the Prosocial method, adapted (in collaboration with Dr. Ostrom) to purposefully build and consciously evolve cooperative groups of any size. Imagine the positive impact this kind of thoughtfulness could have on the environmental movement in your area and across the globe!

These are the interconnected Core Design Principles that any group can embrace to help it flourish: 1) a shared sense of identity and purpose, 2) equitable distribution of contributions and benefits, 3) fair and inclusive decision making, 4) monitoring agreed behaviors, 5) graduated responding to helpful and unhelpful behavior, 6) fast and fair conflict resolution, 7) authority to self-govern, 8) collaborative relations with other groups.

Setting a shared image of identity and worthwhile purpose among all group members helps people know they belong, and can shape the part they play in pursuing the group’s aims. Spreading the contributions and benefits of participation between group members according to what everyone finds equitable helps balance the sense of fairness that most people are attuned to. If a given choice will affect certain people, involving them in making that choice is a crucial element for keeping everyone engaged and motivated, as well as making the most informed, wise decision we can. Establishing a culture of transparency so that people are informed about what others are doing helps keep everyone on track to achieve the group’s missions and uphold its values. Reinforcing helpful behavior and gradually addressing unhelpful behavior is a sure way for peers and leaders alike to maintain trust, integrity, and good faith, as long as rewards and sanctions are not out of proportion with the acts themselves. Deciding in advance how conflict will be discussed and resolved helps ensure fair play and avoid festering resentments. Empowering teams and departments to govern their own work, make their own agreements, and implement the Principles their way is imperative to creating high-performing groups. And consciously applying all these Principles to our group’s interactions with other groups paves the way for supergroups to grow, making possible much of the global coordination we’ve seen in the past century. These Core Design Principles are the building blocks of sustainable, thriving unity. Most groups have several principles in place; few groups have them all.

So how do we guide our relationships, workplaces, or movements in this direction? It takes time and effort and a lot of conversation, but by using insights from evolutionary science it can be done from almost any position within your group’s structure. Think about a group you identify with (as small as a family or as large as a global organization) who could benefit from becoming more productive, more equitable, and more collaborative. The groundwork for change involves setting expectations, building or rebuilding trust, and deciding how to make space in meetings for psychological and emotional flexibility. You would then fully assess your group’s handle on the 8 Principles to inform the changes you want to make, arrange meetings for discussing the Principles and other topics vital to your group, and plan measurable actions everyone can take and reflect on to develop and grow. Keep checking in on progress, and repeat as needed!

Prosocial offers a variety of powerful interpersonal tools for enacting and measuring these changes. The primary strategy is borrowed from Acceptance and Commitment Training (cousin of modern psychology’s influential Cognitive Behavioral Therapy): four simple questions to guide everything from individual reflection to dynamic whole-group meetings. Every chapter includes topical prompts to get people thinking about their goals and values, opening up to share with the group, and staying connected through the emotions that so often arise. There are also numerous resources for facilitators, including step-by-step instructions on how to schedule a series of meetings, what to discuss during and between each session, and how to set goals and keep each other on track to achieve them.

All this and more is firmly supported by reports and studies in evolution, psychology, and cultural change. With that, it’s important to note that the writing style in Prosocial is a bit dry and academic and may not be accessible for all readers. Nevertheless, the ideas they explore could reshape the world for the better.

Human beings are undoubtedly the most cooperative species on Earth. Even ultrasocial creatures like ants and bees are at best indifferent to anyone they aren’t immediately related to, so the fact that people sometimes go to great lengths to help total strangers who can never repay them is a foundation for tremendous hope. If we harness the immense potential of human cooperativeness by consciously evolving our groups to be more prosocial, the coming decades can hold immeasurable promise for all life on this planet. And if you’ve read this far, you are the perfect agent for change.

Order Prosocial from your local bookstore and join the conversation!
FOR 50 YEARS, ECONCNEWS DOCUMENTS THAT CHANGE IS SLOW

Dan Sealy, NEC Legislative Analyst

DROUGHT:
THEN: The EcoNews put a bright light on the drought of 1976-77, a period a State of California report described as, “...the worst in the State’s history...” But as the state continued over-allocation of water for increased agriculture and growing population, the drought of 2001-2002 resulted in a fish kill of over 33,000 adult salmon and steelhead in the lower Klamath, a tragedy caught firsthand in aerial photos by NEC Executive Director, Tim McKay.

NOW: As California suffers yet another period of severe drought, Rep. Valadao (R-CA) has once again authored legislation to rob water from rivers in Northern California to supply agriculture and a growing population in the Central Valley. Rep. Huffman has countered with opportunities to conserve water and reduce use.

REDWOODS:
THEN: The political mistake of putting only a narrow corridor along Redwood Creek to the Tall Trees Grove in the protection of Redwood National Park led to the 1978 increase of the park. 48,000 acres of Redwood Creek Valley within park boundaries was included in the upper protection zones.

NOW: Fortunately, forty years of restoration have improved the ecological health of Redwood Creek, but it is threatened by upstream nutrients and water withdrawal. While conservationists triumphed in saving the 7,400-acre Headwaters Forest Reserve in the 1990’s, the stand-off between conservation organizations and CalTrans over widening of highway 101 through Richardson’s Grove continues to this day.

NUCLEAR ENERGY AND WASTE:
THEN: The PG&E 1960’s-era Humboldt Bay Nuclear Power Plant, located south of Eureka, was shut down due to concerns of leaks and earthquake vulnerability but was not planned for “closure” by the Nuclear regulatory Commission till 2020.

NOW: Even now the site has not completed the “radiological final status surveys.” As the Climate Crisis forces evaluation of risk vs. safety of nuclear power as a low carbon alternative, over 56 severe incidents have occurred in the USA since the Chernobyl disaster of 1986. A Massachusetts Institute of Technology report concluded that with expected growth in nuclear power facilities, there could be at least four serious “accidents” in the next 35 years.

LOGGING
THEN: In the 1970’s residents and visitors to the north coast of California routinely drove by large tracts of forests that had become moonscapes as a result of the increasing size and number of clear-cut logged areas. Sediment and logging debris choked streams and rivers, leaving salmon and steelhead with fewer spawning areas.

NOW: Logging is still a primary concern for conservationists. The 1970 National Environmental Policy Act (NEPA) created the environmental assessment system and laws to assure the use of the “best available science” in federal decision-making. This tool allows the public to review and engage in the assessment of actions and potential impacts as well as take legal action if an agency does not follow science and guidelines. NEPA assessments have been successful enough to stop some of the worst decisions that lawmakers and resources extraction companies propose. Both also regularly introduce ways to limit the effectiveness of this tool. To date NEPA remains one of the most powerful citizen engagement tools to encourage good decisions and stop ill-informed decisions.

WILDERNESS
THEN: EcoNews was full of encouragement to members to attend public hearings to use the 1964 Wilderness Act to save undeveloped, roadless portions of lands administered by the United States by designating large tracts for wilderness protections. That prolonged advocacy helped set aside hundreds of thousands of acres in northern California for future generations to enjoy and savor, free of development.

NOW: The federal government has set aside over 13 million acres of wilderness in California and conservationists are working to add more than 600,000 more acres, one third of which are in northwestern California counties.

ENDANGERED SPECIES
THEN: The Northern Spotted Owl became a symbol of the division between the timber industry, which was focused on the economic benefits of logging, and conservationists using science to protect mature old-growth forests necessary for the survival of this critically endangered species. Similar disagreements set the stage for fights to protect important fish habitat that was being impacted by silt, debris and warmer waters as hillsides became denuded and mining leached toxins into streams and rivers. The 1980’s Northwest Forest Plan was built as a Solomon “split-the-baby” compromise that has not effectively achieved either sustainable populations of endangered birds and fish nor satisfied the glutinous appetite of the nation for wood products.

NOW: In spite of the long hard fight to protect critical habitat for endangered inhabitants of the Pacific Northwest, forests still fail to provide enough sustainable populations of spotted owls, marbled murrelet and salmon. Continued logging, development activities that result in “taking” (killing either intentionally or accidentally), competition with non-native species and the climate crisis have left the Northern Spotted Owl populations unstable, and protected salmon species still suffer from more frequent droughts and dams that block spawning and create toxic water conditions. The good news: though the Spring Chinook salmon is not federally protected, it has been designated endangered by the State of California which may save it from the need for federal protection. Through cooperative efforts by the Yurok tribe and the National Park Service, the California Condor is slated to return to northern California skies in the near future.

The partisan divide in Congress has slowed progress on several legislative efforts supported by conservationists. The infrastructure bills include some important actions that might slow the climate crisis and reduce the nation’s dependence on fossil fuels, but as of late July, as Congress goes into August recess, far too little has been signed into law. September is shaping up to hold the typical threats to close the government while the minority in congress keeps bills from moving to the President’s desk for signature. Look for fireworks in September and into early October.

ENDANGERED SPECIES

U.S. REPRESENTATIVE - CALIFORNIA DISTRICT 2
Congressman Jared Huffman
www.huffman.house.gov

CALIFORNIA GOVERNOR
Governor Gavin Newsom
www.gov.ca.gov

FIND ALL ELECTED OFFICIALS AT:
www.usa.gov/elected-officials
California Citizens Redistricting Commission Needs To Hear From You!

One of the promises of democracy is the power to elect our own government representatives. District boundaries can make the difference between empowering and maximizing our voices or minimizing and muting them. We need to make sure that district lines are drawn to keep us grouped together with others who share the same social, cultural, environmental and economic interests. Learn more and make your voice heard at wedrawthelinesca.org.

Help Save Jackson Demonstration State Forest

Save Jackson State Forest

Sign the petition in support of the creation of a Mendocino Coast Redwood Forest Reserve and a moratorium on logging in Jackson Demonstration State Forest (JDSF). Visit savejackson.org.

Sand Sculpture Festival

NEC Staff

Northcoast Environmental Center staff and volunteers had so much fun participating in Friends of the Dunes Sand Sculpture Festival 2021 Kickoff on Saturday, July 3rd! We created a Chinook Salmon sculpture titled "Don't Cook the Chinook." Show your support for Friends of The Dunes and the N.E.C. by voting for the People's Choice Award at www.friendsofthedunes.org/people'schoice. 1 vote = $1. Winners receive $100 prize.

Decorations Needed

Six Rivers National Forest

The Six Rivers National Forest is honored to provide this year's Christmas tree to adorn the west lawn of the U.S. Capitol, representing the USDA Forest Service and the great state of California. Handmade ornaments and tree skirts by Californians are needed to beautify the tree!

Suggested Themes

We encourage the use of recyclable, repurposed materials in honor of Woodsy Owl's 50th anniversary.
- Natural Resources: Wildlife, wildflowers, trees
- Cultural Diversity: Tribes, logging, fishing, agriculture
- Uniquely California: What makes our state special
- Forest Service Icons: Smokey Bear "Fire Prevention" & Woodsy Owl "Don't Pollute"

Learn more at uscapitolchristmastree.com

It's A Fish

By Joel Mielke

Okay... it's a fish. We'll even concede that it's a salmon...

Pacific Legal

Source: www.fs.usda.gov

Top Right: Sculpting Queen, Megan, generously volunteered her time and led the NEC staff in the design and creation of the sand sculpture. Photo by Mark Larson. Center: NEC staff and volunteers pose with their finished creation: "Don't Cook the Chinook" sand sculpture at Friends of the Dunes Sand Sculpture Festival Kickoff on July 3. Left to right - Ivy, Casey, Chelsea, Carrie, Megan, Caroline, Bryon. Photo by Mark Larson.
Get on Board for the Climate
Proceeding with Caution

Martha Walden, 350 Humboldt

Like everything else, aquaculture has its benefits and drawbacks. At a time when fisheries are collapsing around the world due to pressures on their wild stock, the ability to farm fish has undeniable appeal. Whether or not aquaculture exacerbates or relieves those pressures is another question -- one I cannot try to answer. What I want to summarize here is the potential carbon footprint of the facility Nordic Aquaculture has proposed for the Samoa Peninsula.

In the Initial Study / Mitigated Negative Declarations statement, Nordic has determined that its energy demand will be "less than significant." If this confidence is based on the solar array proposed for the site, it's a mistake -- maybe even a typo. Electricity produced on site will not supply the projected 33% of what is needed -- more like 3.3%. Also, the declared amount of needed electricity -- 21 MW -- seems too small for a project of that size. The proposed facility is significantly larger than Nordic's facility in Belfast, Maine, which operates in exactly the same way. It uses 28 MW. Comparing the scale of the two projects suggests that the proposed facility could use about 35 MW.

Can PG&E -- the primary producer of local electricity -- deliver that amount of additional power and still meet its obligation of 100% renewable in 2045? If, as we hope, an offshore wind farm is built this decade in partnership with Redwood Coast Energy Authority, then the problem could be handily solved. So far, Nordic has not committed to using that future electricity, nor has it committed to the goal of carbon neutrality.

Transport adds significantly to the carbon footprint. Feeding the salmon involves catching other fish and processing them into fishmeal that is shipped to Canada to be processed into its final form and then shipped here. Transporting the finished product requires refrigerated truck traffic. Plus, a waste product referred to as "sludge" would require transportation to a composting facility -- perhaps in Marysville, CA.

Refrigeration and air conditioning, major components of Nordic's operation, entail refrigerants with potentially high global warming impacts. The new federal legislation that limits GWP to 150 (holds one hundred fifty times more heat than carbon dioxide) for new units will not go into effect until the first day of 2022. It certainly wouldn't behoove Nordic to try to slip under the wire. Still, this requirement should be spelled out because the wrong choice of refrigerants could drastically increase its greenhouse gases in the event of a major leak. Optimum would be Nordic committing to using natural refrigerants such as butane, carbon dioxide or ammonia. Those have the lowest GWP of all.

Producing food is arguably humankind's biggest priority, and there's no such thing as a free lunch. But the issue of GHG emissions sharply defines our future on a planet that has been pushed too close to its limits. We may hope that Nordic will take the long view when it comes to climate, but no corporation has an internal directive beyond maximizing its profits. The detailed response from Humboldt’s environmental community has alerted Nordic to the necessity of preparing a full-on Environmental Impact Report. That will be a very long document.
**PLASTICS PACT TACKLES PACKAGING**

Australia and New Zealand have recently launched an agreement with more than 80 major corporations that will eventually eliminate plastic waste in the Oceania region. Dubbed the ANZPAC Plastics Pact, this vigorous agreement promises to achieve four goals in four years: 1) eliminate all unnecessary plastic waste; 2) ensure 100% of the remainder is reusable, recyclable, or compostable; 3) increase collection and proper recycling in the region by 25%; and 4) reach an average of 25% recycled content in all plastic packaging used in the area. Pledged corpora-tions include Coca-Cola, Nestle, Pepsico, and Unilever.

This act unites Oceania with over 550 organizations and 10 similar pacts around the world as part of the Plastics Pact Network of the Ellen MacArthur Foundation. The Plastics Pact Network offers resources, strategies, and guidance for national and regional initiatives working toward a circular economy for plastics, in which it never becomes waste or pollution. The network enables and empowers global knowledge sharing, strategic alignment, and coordinated action in response to issues of plastic pollution.

The United States is also a member region of the global Plastics Pact, with dozens of pledges including Clorox, General Mills, and Target stores promising to reach the same four goals by 2025.

**Sources:** Good News Network, ANZPAC, Ellen MacArthur Foundation, US Plastics Pact

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**SOLAR CANAL COVERS SAVE WATER, ENERGY, & SPACE**

Installing solar panels over water canals can save water lost to evaporation, increase power efficiency, and limit habitat loss from building solar farms over land.

In 2014, the state of Gujarat, India, ran a pilot project to cover a long stretch of irrigation canals with solar panels fixed to steel cables. This inspired several much larger canal-covering projects around the country, including a 100-megawatt solar plant.

Researchers in India found less water was lost to evaporation, and the cooler microclimate around the canals helped prevent the solar panels from overheating, making them an average of 2-5% more efficient.

In March 2021, a team at University of California Santa Cruz published a study in Nature Sustainability that models the costs and benefits of applying solar panel coverage to California’s 4,000+ miles of water canals. With the world’s largest canal network and an average of 290 days of sunshine per year, California could potentially meet two needs with one deed: partially ease the state’s consistent water woes, and increase the share of electricity coming from renewables.

The study found that over-canal solar installations throughout California could conserve a massive amount of the state’s water, that future financial savings outweighed the initial cost of the more complex solar arrays, and that the value of canal paneling could exceed conventional overground solar by 20-50%. On top of all that, the diesel-powered pumps currently used for much of California’s farm irrigation could be replaced by solar pumps, adding even more environmental benefits.

Overall, the study robustly challenges our current assumptions on the most efficient and economical placement and application of solar panels.

**Sources:** Good News Network, Nature.com

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**SCOTLAND TO PLANT 18M TREES**

Glasgow, the most populous city in Scotland, has begun a new initiative to plant 10 trees for each person living in the region, totaling around 18 million plants over a ten-year period.

The Clyde Climate Forest initiative is intended to breathe new life across the area, increasing woodland cover from 17% to 20%. Headed by the Glasgow & Clyde Valley Green Network, a coalition of local authorities, environmental groups, and engaged citizen volunteers will be assessing which trees to plant where in order to maximize longevity and biodiversity. The teams plan on connecting woodlands that were fragmented by urban development, and restoring nature to former mining sites and derelict land guided by the principle “the right tree in the right place.” There are also efforts to encourage and assist smaller landowners and localities by providing free assessments to identify areas that can be greened up.

This level of environmental coordination is new for Scotland, connecting eight local authorities with larger government entities and other partners to bring the forests to life. Past achievements include counterbalancing tree-planting goals across the UK in 2018—when England fell short of its reforesting target, Scotland surpassed their own target by over 1,000 hectares (~4 square miles).

Councillor Andrew Polson, Chair of the Land Use and Sustainability Portfolio for Glasgow City Region, said, “We all have a fantastic opportunity to work collectively to improve our living environment whilst tackling climate change at the same time.”

**Sources:** Good News Network

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**HSU’S COMMERCIAL SEAWEED FARM**

Humboldt Bay is host to California’s first commercially-approved seaweed farm, thanks to a partnership between Humboldt State University and environmental nonprofit GreenWave. Pioneering solutions to numerous challenges in permitting, infrastructure, and aquaculture science, the team behind HSU-ProvideSea farm aims to set an example in regenerative farming—and connect California with a billion-dollar global industry.

Seaweed as a crop grows very quickly, is highly nutritious and flavorful, and commands a huge variety of applications from weaving to fuel to fertilizer. Perhaps more importantly, seaweed is also a major player in addressing the damaging effects climate change has on regional waters. According to NOAA, “seaweeds pull phosphorus, and create habitats for marine life. On top of all that, Australian Marine Systems Ecologist Dr. Pia Winberg suggests that if we broadened our scale and "created seaweed islands," the plant would soon rival the staple commodities we all rely on, like lumber, concrete, plastic, and grains. Possible seaweed products could easily include biodegradable plastics, construction materials, and even artificial limbs.

"Seaweed farming is an industry that is about 500 years old," says Dr. Rafael Cuevas Uribe, HSU Fisheries Biology professor and co-designer of HSU-ProvideSea farm. "But this is the first time here in California that somebody’s doing red seaweed at commercial scale in open waters." Humboldt Magazine reports: "The farm’s design is simple, inexpensive, and scalable... mostly rope, suspended in the water column, with four anchors being its only physical footprint." There’s also no need for fresh water or fertilizer, since the plants gather everything they need from the ocean.

HSU-ProvideSea specializes in growing Pacific dulse, also known as “bacon of the sea” for its rich umami flavor. A team of students oversee the day-to-day operation of the farm, monitoring growth and conditions as well as troubleshooting problems. This experience can then be passed along to future seaweed startups, making waves in agriculture locally and on coasts around the world.

**Sources:** Humboldt Magazine, Good News Network
**TRIBES OF HUMBOLDT QUIZ**

**WHAT DO YOU KNOW ABOUT THE TRIBES IN THIS COUNTY? TEST YOUR KNOWLEDGE!**

1. How many Tribes are there in Humboldt County?
   - a. 5
   - b. 7
   - c. 8
   - d. 10

2. Whose ancestral territory is the Northcoast Environmental Center’s office (Arcata, CA) situated in?
   - a. Yurok Tribe
   - b. Blue Lake Rancheria
   - c. Hupa Tribe
   - d. Wiyot Tribe

3. What year did the Indian Island Massacre of the Wiyot Tribe occur?
   - a. 1860
   - b. 1891
   - c. 1902
   - d. 1910

4. The G-O Road was stopped in 1984 by the ________.
   - a. Endangered Species Act
   - b. California Wilderness Act
   - c. Clean Water Act
   - d. Environmental Protection Act

5. Prior to colonization, the Wiyot Tribe’s ancestral territory included around _____ miles of coastline.
   - a. 24
   - b. 35
   - c. 37
   - d. 40

6. In 2019, the City of Eureka returned 202 acres of land on _____ to the Wiyot Tribe, marking the first time any city has ever returned land to a tribe.
   - a. Tsakiyuwit
   - b. Baduwa’t
   - c. Jaroujiji
   - d. Tuluwat

   - a. Cultural Center & Garden
   - b. Native Languages Program
   - c. Food Sovereignty Lab & Cultural Workspace
   - d. Native Art Gallery

8. Blue Lake Rancheria recently opened its community garden, named ________.
   - a. Daluviwi’ Community Garden
   - b. Jaroujiji Community Garden
   - c. Baduwa’t Community Garden
   - d. Goudi’ni Community Garden

9. In March 2021, the Yurok Tribe, U.S. Fish and Wildlife Service, and the National Parks Service announced they expect to reintroduce the iconic ______ into the wild in late 2021 or early 2022.
   - a. Coho Salmon
   - b. Bald Eagle
   - c. California Condor
   - d. Steelhead Trout

10. On June 16, 2021, the California Fish and Game Commission ruled unanimously to add Upper Klamath Trinity ________ to the California Endangered Species List.
    - a. Spring Chinook
    - b. Fall Chinook
    - c. Spring Steelhead
    - d. Lamprey

**Answer Key**

1. c 2. d 3. b 4. d 5. c 6. a 7. c 8. a 9. c 10. a

Sources: The North Coast Journal, Wiyot.us, Wikipedia, Yuroktribe.org
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