Celebrate Mushroom Season

Poisonous Amanita muscaria

Justice for People and the Planet | 41,000 Pieces of Trash Picked Up | Lassen Wolf Pack Has Pups
King Tides | Beating Winter Blues | Kin to the Earth: Carol Vander Meer | Klamath Dam Update
LETTERS TO ECONEWS
We want to hear from you! Write us a letter 300 words or less that’s relevant to EcoNews and we’ll consider publishing it! The NEC reserves the right to reject any submitted material for any reason.
Email Caroline@yournec.org

COMMUNITY SUBMISSIONS
We want to feature your work! Do you have nature art you’d like to share? How about photos of your catio, compost bin, garden, solar array, etc?
Email Caroline@yournec.org

NEC PROJECT HELP
Are you crafty? The NEC is looking for help with a few projects:
1. Display Case
2. Outdoor News Rack
Email Chelsea@yournec.org

Bouquets
SINCERE GRATITUDE TO:
• Save California Salmon, and everyone who participated in the Undam the Klamath Day of Action. Activists all over the Pacific Northwest have been working hard to call out PacifiCorp and Warren Buffet for not following through with the deal to remove dams on the Klamath. Recently, a deal was made between the State of California, PacifiCorps, and the Karuk and Yurok Tribes to move forward with dam removal on the Klamath. This is a victory for everyone, and particularly for the Native families who have always lived with and protected the Klamath.
• The Kinetic Sculpture Lab! For more than 50 years, the “triathlon of the art world” held in Humboldt County has brought worldwide recognition and countless tourist dollars to the area. This year, due to COVID-19 restrictions, their Halloween fundraiser was unable to take place. Please consider making a donation to the group’s GoFundMe page: https://gf.me/u/y4u95d

EcoNews Coordinator: Caroline Griffith
ECO NEWS
415 I Street, Arcata, CA 95521
PO Box 4259, Arcata, CA 95518
707-822-6918 | www.yournec.org

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NEC STAFF
Executive Director: Larry Glass, larry@yournec.org
Administrative & Development Director: Carrie Tully, carrie@yournec.org
EcoNews Coordinator/Journalist: Caroline Griffith, caroline@yournec.org
Coastal Programs Coordinator: Casey Cruiskshank, casey@yournec.org
Admin. Assistant & Outreach Coordinator: Chelsea Pulliam, chelsea@yournec.org
Bookkeeping Assistant: Anita Gilbride-Read, volunteer

EcoNews Graphic Layout: Chelsea Pulliam
Proofreaders: Terra Freedman, Kris Diamond

Authors: Larry Glass, Carrie Tully, Caroline Griffith, Dan Sealy, Jen Kalt, Carol Ralph, Kimberly Baker, Casey Cruiskshank, Martha Walden, Colin Fiske, Margaret Gainer, CJ Ralph, Brittney Morettini, Johanna Rivera, Ali Ong Lee, Matt Simmons, Mike Belchik, Rob Bray, Max Brotman, Tamara McFarland, Mike Cipra, Wendy Ring

Cover: Poisonous Fly agaric mushroom (Amanita muscaria). Photo credit: Martha de Jong-Lantink Flikr Creative Commons

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News From the Center

Larry Glass, Executive Director
Carrie Tully, Admin. Director

A New Day...Sort of

We, and the entire environmental community can take a deep breath knowing that after January 20, 2021, no more environmentally destructive Executive Orders will be issued from the White House. Now, that’s the good news. Unfortunately, there is time for a lot more destruction until we get to that important date. Even with the new Democratic President, we still have the problem of the Republican party, led by Mitch McConnell (the self-described “Grim Reaper”), who refuses to allow bipartisan bills to even be debated in the Senate. We’re going to have to make bold and creative use of Executive Orders to ensure that we protect the remaining environmental assets we have in this country. For example, as we write this, the lame duck Trump administration is asking oil companies to identify where they would like to drill on Alaska’s Arctic National Wildlife Refuge as it races to open the pristine wilderness to development and lock in drilling rights before the Biden administration takes charge. This is going to require maximum use of public pressure to stop some irreversible destruction of places like the Tongass and the National Wildlife Refuge. Our elected officials, Senator Dianne Feinstein, Congressman Jared Huffman, and whoever Governor Newsom appoints to take Senator Harris’s place, need to hear how important these special places are to you.

August Complex Fire

Many of us are still dealing with the effects of the million-acre plus August Complex Fire. As of now, the U.S. Forest Service and the State of California are focused on the Mad River watershed because it is a municipal water source. Almost all of the government resources are being applied to recovery and remediation of the area around and to the south of Ruth Lake. While this is critical, it’s not the only place impacted. The South Fork of the Trinity river is a critical watershed, and unfortunately has had severe impacts from both the fire itself, and the suppression efforts. Right now, very little work is being done in this very large watershed to protect it from the coming winter storms.

Broadway Corridor

The City of Eureka, under the guise of fixing vehicular and pedestrian traffic problems on Broadway, is once again proposing roads through wetlands and contaminated areas near the waterfront. (See page 11). It seems that every ten years or so, the City decides that it’s worth trying to blow this by the public again. Every time the public rises up and emphatically says ‘No’, and the Coastal Commission tells the City ‘No’. But, here we go again. Instead of doing improvements to the Broadway Corridor itself, which would reduce bicycle v. vehicle and pedestrian v. vehicle collisions, they’re going to go down this rabbit hole again. If you live or work in Eureka, let the City Council and Caltrans know how you feel about your personal safety in the Broadway Corridor.

Trinidad Hotel Proposal

The Coastal Commission took action on the Trinidad Rancheria’s hotel development proposal. In an October 30, 2020 letter to the BIA, the Executive Director identified several additional information needs: (a) Dry-weather pump testing for the two proposed wells, and possibly additional well(s), that would indicate a supply adequate to support the hotel at 100% capacity (14,000+ gallons per day); (b) Information on “Location, yield, drawdown extent and recharge potential, and cones of depression associated with all proposed wells.”; and (c) “Evaluation of the potential coastal resource-related effects of the wells, including effects from a third well once its location is identified”, including possible effects on nearby McConnahis Mill Creek. Now our attention turns to the Humboldt Bay Municipal Water District and the request being made to them to provide water for this large development. The NEC will continue to watch this and keep you informed.

Staff Operations

Although we’ve been pretty vocal about the incredible job that staff has been doing to adapt to working from home, we’re going to do it again. The autumn season has been a time for us to reflect on the last year’s achievements, and to plan how we would like the next year to look. Because the office is no longer being used for day-to-day operations, staff have reimagined it to be used in a way that will make it a more interactive and community-focused space. We know that due to the recent move to the red COVID-19 tier we won’t be able to reopen the office to the public, but that hasn’t stopped us from preparing for reopening! With everything in life, there is a silver lining to this change...

As a result of being unable to work together in our office or reopen to the public, we have envisioned an eco-boutique workspace that welcomes passers-by, can host community collaborative meetings, offers a place for eco-creations, and provides resources for Trash Trackers. Outreach Coordinator and EcoNews Graphics Designer, Chelsea Pulliam, has taken the lead on interior design - meticulously evaluating the purpose of every item in the office. We are truly taking a new direction with regard to this space, and might not have had the opportunity to do so if this year had been business as usual. The staff’s perseverance and positivity continues to shine!

Finally, we wish to take this opportunity to inform you that the NEC is entering into its 50th year! The first order of business in the new year, will be hosting a virtual Open House on January 21, 2021. We will take this opportunity to show gratitude for the people and organizations that helped us come this far, tell stories, socialize, and feature live music by Michael Dayvid. With that being said, Happy Holidays! We will see you in 2021. Cheers!
SIXTH ANNUAL TIM MCKAY BIRDATHON

C. John Ralph, RRAS

Every year, for the past six years, the Northcoast Environmental Center (NEC) and Redwood Region Audubon Society (RRAS) have held a fundraiser in honor of Tim McKay. Tim was a great friend to the environment and Executive Director of the NEC for thirty years. While at the helm of that organization, Tim began holding annual Birdathons and splitting the funds raised with RRAS. Tim had the charisma to cajole many folks from the local birding community to participate, which involves forming teams of birders whose goal is to see, hear, and identify as many bird species as possible within a 24-hour period. The money is donated by team sponsors who pledge to contribute a set amount for every species observed. After Tim’s untimely death at the age of 59, the Birdathon lapsed for a while, but some of his old friends rejuvenated it as a way of remembering him.

The Birdathon funds are vital to these two largely-volunteer organizations. The money is used to educate our community about the many challenges facing our local ecosystems, and to lobby for the wild animals and plants that have no voice.

To learn more about these organizations, please visit www.yournec.org and www.rras.org.

TIM MCKAY BIRDATHON SETS RECORDS!

With much more than $10,000 in the bank accounts, a record was set in funds gathered for NEC and the Redwood Region Audubon in the annual Tim McKay bird-a-thon, honoring the long-time Director of NEC and avid birder. Two teams of countours went out in September to see how many species each team could count in a day. Team NEC with Gary Falxa and Gayle Garman, and the “Talllers” (profiled in a recent Sandpiper) of Gary Friedrichsen, Gary Bloomfield, Greg Chapman, and C.J. Ralph.

They gathered an amazing over 140 pledges, usually of a given amount per species, ranging from 10¢ to $5! In this time of shutdowns, having this as a much-needed fundraiser helps these organizations a great deal.

We thank the following folks who pledged and shared in the glory: Gisele Albentine, Tom and Kat Allen, Elaine Allison, Jan Anderson, Leslie Scopes Anderson, Mark Andre, Mark and Patty Andrews, Bob and Karen Behrstock, Chris and Richard Beresford, Jamie Bettaso, John and Barbara Brimlow, Adam Brown, Ralph Bucher, Karen Burgesser, Christine and Gene Callahan, Sydney Carothers, Carl Carranza, Charles Culverling, Bart Chapman, Bob Chapman, Greg Chapman, Ryan Chapman, Serrina Chapman, Maia Cheli, Mike Cipra, Dale Clark, Les Chow, Elaine David, Nancy Dean, Tom and Amy Dewey, George Epperson, Gary Falxa, John Falxa, Maggie Fleming, Scott and Trude Frazer, Rich, Barbara, and Howie Friedman, Bob Friedrichsen, Gary


BEATING THE WINTER BLUES

Brittney Morettini, Guest Author

It’s December, and the first day of winter is right around the corner. Our daylight hours are getting less and less by the week, and many of us are feeling this change in the season more so than usual. With everything that has been going on in the world in the last year, it is important to notice how the outside world may be affecting your mental health.

My name is Brittney Morettini, I am a local Pilates instructor here in Humboldt County, and I wanted to share my tips & tricks to kick the winter blues! To begin with, regular exercise is a powerful way to fight seasonal depression, whether it’s going for a walk during the daylight hours that we have available to us, joining a group class at any of the fabulous local studios that Humboldt has to offer, or getting your sweat on from the comfort of your home. Exercise is proven to boost serotonin, endorphins and more. Specifically, regular exercise is shown to combat seasonal affective disorder, which impacts many people.

For a large number of us, our daylight hours are taken by our day job. If that is the case, try your best to take a 30 minute walk during your lunch break! Even if you do not have the time for a full workout, getting a couple steps in during the daylight is a great way to boost those feel-good chemicals in your brain. In addition to exercise, I find it helpful to up my intake of B vitamins during the winter months. Research has shown that deficiencies of B Vitamins (namely B2, B6, B9, and B12) have been tied to depression.

Besides exercise and vitamins, some other tricks that I recommend for raising my spirits include keeping a routine of self care. Self care looks different for everyone. It could mean taking a bubble bath, developing a sleep schedule and establishing a routine, taking care of your gut, saying no to people, planning time for yourself, or meditating (my favorite meditation app is Waking Up. I love their daily meditations which are either 10 or 20 minutes long!).

Personally, when I am feeling overwhelmed, I recharge by taking a bubble bath and making sure that I am not over-booking myself. Many of us feel a constant pressure to be productive, myself included. Making sure that I have a planned part of my day for me, to relax and let go, is very important for my mental health. Often we feel that we owe our time to our friends and family, to work and other obligations; it is essential to say “no” sometimes, and to say “yes” to taking care of yourself. Finally, and very importantly, if the Winter Blues hit you hard this year, remember that you are not alone - reach out to your loved ones, share your experiences. The more we are able to communicate with each other and and talk about when we are feeling down, the less stigma there will be attached to what have become very common feelings during these challenging times.

Local Flake Sea Salt

For Sale in Bulk: Eureka Natural Foods Northcoast Coop
Dear EcoNews,
I have noticed the foul condition of the Mad River. This is our drinking water. Does the local water district check for pesticide build up at the intake pumps? Will the rains (if they ever come) wash the filth from the weed grows into our home water taps? Where do birds get a drink?
Thanks,
Water Wary

Dear Water Wary,
According to the Humboldt Bay Municipal Water District (HBMWD), “Drinking water delivered by the District is drawn from wells below the bed of the Mad River northeast of Arcata. This water-bearing ground below the river is called an aquifer. These wells, called Ranney Wells, draw water from the sands and gravel of the aquifer at depths of 60 to 90 feet, thereby providing a natural filtration process. During the summer, this naturally filtered water is disinfected via chlorination and delivered to the District’s wholesale municipal and retail customers in the Humboldt Bay area. During the winter, it is further treated at a regional Turbidity Reduction Facility which reduces the occasional turbidity (cloudiness) in the District’s source water.”

John Friedenbach, General Manager of the Humboldt Bay Municipal Water District, says that the depth of these wells and the natural filtration process means that the water you eventually drink hasn’t come in contact with the foulness that you are observing on the surface of the river. “Blue green algae on the surface is not an issue for our drinking water because the depth from which the water is pumped,” he said.

As a stipulation of the Safe Drinking Water Act (SDWA), every municipal water district must provide a yearly Consumer Confidence Report (CCR). HBMWD’s can be found on its website at hbmwd.com/consumer-confidence-report. In addition to the tests listed on that report, HBMWD also follows the EPA’s Unregulated Contaminant Monitoring Rule (UCMR), which recommends that water districts test for certain “constituents of concern,” i.e. contaminants that are suspected to be in drinking water but do not have health-based standards set under the SDWA. The SDWA was first passed in 1974, so amendments have been made to account for contaminants that weren’t originally in the legislation, and results from UCMR tests can be used to influence which toxins are regulated. HBMWD most recently used UCMR4, which requires monitoring for 30 chemical contaminants between 2018 and 2020. UCMR4 tests for 10 cyanotoxins (the toxins produced by cyanobacteria, or blue-green algae), two metals (germanium and manganese), eight pesticides and one pesticide manufacturing byproduct (including chlorpyrifos), three brominated Haloacetic acid groups, three alcohols and three other semivolatile chemicals. According to Friedenbach, the District’s most recent UCMR4 results for pesticides (using EPA test 525.3, which tests for 125 semi-volatile chemicals) all came back “non-detect.” So, that water coming out of your tap has been tested for many pesticides before it reaches you.

But what about the birds? The water at the surface has not gone through a filtration process, natural or otherwise and there is no SDWA for animals. C.J. Ralph of the Redwood Region Audubon Society says, “Providing water is a great idea for several reasons. For one, it brings in birds that normally don’t come to seed or nectar feeders. Of course, replace the water daily to keep it fresh. For the bath itself you can use a shallow saucer like those under a potted plant. Put it a few feet away from nearby cover so that cats have a couple of bounds before they’re there. Birds will use it any time of the year, even in winter, but especially in the summer. Even in the winter the birds will use it, especially if it’s away from where cats might lay in wait. Active water dripping into the saucer really brings in birds. You can get a kit at some local stores or Google "bird bath dripper kit" for suggestions.”

-Caroline Griffith,
EcoNews Journalist

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THE ECONWS REPORT

A selection of some recent EcoNews Reports:

Election Post-Mortem
November 14 – Gang Green goes around the horn with thoughts about the outcome of the most recent election.

Is Justice Amy Coney Barrett a Threat to the Environment?
October 31 – Much has been said on how Justice Amy Coney Barrett will rule on questions of abortion and healthcare, but what about her stance on the Chevron deference? If you don’t know what that is, you are not alone. Gang Green goes law nerd and dives into the bedrock of our federal administrative state. We promise this isn’t boring.

New Zealand Mudsnauls Invade the Mad River
October 24 – New Zealand mudsnauls are small—about the size of a peppercorn—but they can be a BIG problem for watersheds where they are found. The Green Gang sits down with Darren Ward, Associate Professor of Fisheries Biology at Humboldt State University, and Jacob Pounds, environmental scientist at the Blue Lake Rancheria, to learn about new infestations in the Mad River and how you can prevent the spread of these snails.

Real Talk About the Green New Deal
October 17 – Washington is a mess. With the Feds failing to lead on climate change, is there any hope for our planet? On this week’s EcoNews, Gang Green dives into what it would take to translate the principles and values of the Green New Deal – you know, the thing that your crazy uncle says will ban hamburgers – into local legislation.

Local Fire Ecologist Lenya Quinn-Davidson on This Year’s Record Fire Season
October 10 – The Green Gang interview fire ecologist Lenya Quinn-Davidson about this year’s record fire season and what people can do to reduce fire risk on their properties. (Did you know it can be as easy as cleaning out your gutters?)

Organic Toxins Found in the Mad River
October 3 – Jacob Pounds of Blue Lake Rancheria Environmental Department, recently detected toxic algae in the Mad River from Blue Lake to Arcata.

Thanks to KHUM & Lost Coast Outpost!
Casey Cruikshank,  
Coastal Programs Coordinator

2020 has been an exciting year for Coastal Programs at the NEC. Now that we’re collecting data year-round (not just during Coastal Cleanup Day), we have a much bigger picture of our local debris issue and that picture will only become more clear as time moves forward and more individuals help us collect the data we need. Our current coastal programs contributing to data collection include: Adopt-A-Beach, Adopt-A-Block, Trashathon, Coastal Cleanup Day and Trash Trackers. Our latest addition of Trash Trackers is our entry-level Coastal Program at the NEC. Anyone, anywhere can download the App and be an instant participant. If you’re interested in signing up for the Trash Trackers program, please visit our website to sign up: yournec.org/trashtrackers.

We are actively working to make data collection simple and fun for all participants involved, and switching over to the NOAA Marine Debris Tracker App has proven to be the hot ticket. Not only are we able to track locally specific issues by using our own data list, but we’re seeing the numbers coming in much higher than last year which means we have more volunteers participating in debris removal and citizen science. Go team Humboldt!

Let’s take a look at our Coastal Programs debris data from this year. As of November 10, citizen scientists have collected and submitted data on 41,038 individual pieces of debris around Humboldt County. Wow! So, what story is our debris data telling us?

Data Collection

Behind the scenes, our amazing Coastal Programs intern, Ivy Munnerlyn, has been working to turn historical Coastal Cleanup Day paper data cards into digital data. This is no small feat! Thanks to her hard work we now have digital access to data all the way back to 2014. Over the last few months, we’ve taken that data and have been working with Michael Lee (also known as our Data Guru) to make the data available on the NEC website. The historical data can be found at yournec.org/coastalcleanupday/history/. Michael and I will be working together in the coming year to find patterns, make coastal cleanup data easily accessible, and share the stories that our data is telling us. We are so grateful for our Coastal Programs volunteers and the many important roles that they fill. Whether you’re out in the field participating in debris removal or inputting data into our database, we couldn’t do it without you! Cheers to a new year full of environmental stewardship, citizen science and Coastal Programs success stories.
2020 Top Five Debris Items

1. Cigarette Butts - 10,495 removed
   This year, our volunteers removed 10,495 cigarette butts from the streets and beaches. For every year that we have been collecting data, cigarette butts have been at the top of our list. This is not just a Humboldt County issue, this is a global issue.

2. Nails, screws and staples - 10,313
   Thanks to Ren Brownell, a Trashathon volunteer sponsored by Humboldt Distillery, nails made an appearance in our 2020 top five items. In one afternoon she tackled Centerville beach with some buckets and a strong magnet, coming away with 32 pounds of nails, screws and staples which brought her to a total of 10,257. We are grateful to Ren for shedding light on this specific issue through her data reporting. All of the nails, screws and staples were found in fire pits from individuals burning pallets and other objects on the beach. Help us spread the word that fires leave a trace and rusty nails, screws and staples are an environmental hazard to beach-goers.

3. Fireworks - 5,655
   We put out a call to our Coastal Cleanup volunteers to help us highlight the waste after the 4th of July and the results are shown in our data. With just a few volunteers, fireworks quickly skyrocketed to the third most common item based on the sheer amount of waste even just one firework can create. While fireworks put on a big show, there is a hefty environmental cost to be paid for this type of celebration.

4. Plastic Food Wrappers - 2,419
   Plastic food wrappers are some of the most common single-use plastics out there. Particularly with COVID regulations and every food item individually packed, we’re seeing a rise in food packaging waste on our streets and beaches. One way to combat this is to dine in and avoid the items that are over packaged. You can also check out our Reduce Single-Use pledge at yournec.org/pld and print out a handbill (see page 1 & above) that you can bring to your favorite local restaurant to encourage its participation in reducing unnecessary waste.

5. Beverage Cans - 616
   I am always surprised when I find cans on the beach and streets considering they are recyclable, however they’re a commonly littered item. Beverage cans are not just made out of aluminum, they commonly have plastic both on the interior and exterior. In the process of the can breaking down, the plastics enter the environment along with the rusting aluminum. If you see cans on the beach, remove them and report them on the NOAA Marine Debris Tracker App.

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**2020 Top Five Debris Items**

- **Beverage Cans**: 616
- **Food wrappers (plastic)**: 2,419
- **Fireworks**: 5,655
- **Cigarette Butts**: 10,495
- **Nails**: 10,313

**2019 Top Five Debris Items**

- **Construction Materials**: 561
- **Bottle Caps (Plastic)**: 811
- **Other Trash**: 1,176
- **Food Wrappers**: 2,532
- **Cigarette Butts**: 9,629

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**Reduction Single Use Pledge**

**Love the food. Keep the plastic.**

**Sign the Reduce Single-Use Pledge.**

**YOURNEC.ORG/PLEDGE**

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Data collected with the NOAA Marine Debris Tracker App (24,937 items) and Coastal Conservancy data cards (15,139 items).

Data collected with the Coastal Conservancy data cards digitized by NEC’s Coastal Programs intern, Ivy Munnerlyn.
Intersectional Environmentalism: Justice for People and the Planet

Johanna Rivera,
Outings Leaders from Latino Outdoors
johanna@latinooutdoors.com

Have you heard of the new buzz word “intersectional environmentalism,” recently defined by Leah Thomas? Earlier this year in May, during the uprisings following the murder of George Floyd, Southern California-based environmental activist and eco-communicator Leah Thomas posted a pledge on her Instagram urging fellow environmentalists to stand in solidarity with Black Lives Matter and quit ignoring the intersections that connect the environment and social justice.

The term “intersectionality” was first coined by professor Kimberlé Crenshaw about 30 years ago. Intersectionality describes how race, class, gender, sexuality, ability and other individual characteristics intersect with one another and overlap. Individuals can experience oppression and be differently impacted by a blend of these interconnected social structures. We live in a predominately white, ableist, heteronormative worldview and should be moving towards using an intersectional lens to examine social and environmental issues, including the climate crisis and deforestation.

Leah states that “intersectional environmentalism is an inclusive version of environmentalism that advocates for both the protection of people and the planet. It identifies the ways in which injustices happening to marginalized communities and the earth are interconnected. It brings injustices done to the most vulnerable communities, and the earth, to the forefront and does not minimize or silence social inequality. Intersectional environmentalism advocates justice for people and the planet.”

Racial and environmental justice are inextricably connected and cannot be separated because these issues are not just about the environment. Black and brown lives are disproportionately being affected by environmental toxicity and climate change. From the poorest communities in El Salvador, to Flint Michigan and over 100 Indigenous reserves in Canada, there are people who don’t have access to clean water.

You have probably already heard of “Cancer Alley” or “Death Alley” where the Dow Chemical Company was built along a river in Louisiana surrounded by predominantly black neighborhoods. Many there have died due to the poison expelled by the company. The Navajo Nation’s underground wells were poisoned by uranium mines and the air polluted by coal plants for decades. Many of these marginalized communities are by no coincidence chosen as dumping grounds by businesses, thanks to segregation and zoning ordinances that benefit race and class discrimination.

There are currently indigenous people being forced out of their lands by deforestation led by logging companies and facilitated by governments, like in Brazil. Locally, the Karuk, Yurok, Klamath and Hoopa tribes have been demanding Pacific Power undam the Klamath. The dam has negatively impacted water quality, salmon runs and the ability of tribal members to practice their sacred ceremonies. Undamming the Klamath is a crucial step towards mitigating the climate crisis impacting us here at home.

Hop Hopkins wrote a great article called “Racism is Killing the Planet” where he states that we can’t stop climate change without ending white supremacy. He says, “We’re in this global environmental mess because we have declared parts of our planet to be disposable. The watersheds where we frack the earth to extract gas are considered disposable. The neighborhoods near where I live in Los Angeles, surrounded by urban oilfields, are considered disposable. The very atmosphere is considered disposable. When we pollute the hell out of a place, that’s a way of saying that the place - and the people and all the other life that calls that place home - are of no value.”

Need I mention how the mass incarceration of mostly black and brown people is degrading the natural environment and human health of those inside and nearby prisons and jails? Please look up the Prison Ecology Project. I can go on and on about intersectional environmentalism, but I will let you do some research yourself and provide some good reading material and social media handles to follow.

READ:
• Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility by Dorceta Taylor
• Rooted in the Earth: Reclaiming the African American Environmental Heritage
• Latinx Environmentalisms: Place, Justice, and the Decolonial edited by David Vazquez and Sarah Wald
• Braiding Sweetgrass by Robin Wall Kimmerer
• Black Faces, White Spaces by Carolyn Finney

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www.yournec.org
Reaching Beyond the Usual Fish: Equity and Inclusion in Programs and Policies

Ali Ong Lee

In the 1970s, while fishing with my father from a San Francisco pier, somebody handed me a pamphlet about environmental racism. It warned us about the high mercury levels in the fish we were most likely to catch from the pier that Saturday morning: striped bass, surf perches, jacksmelt, California halibut, and rockfish. I looked up from my empty bucket and realized that the majority of people fishing from that pier were black and brown, like us, out for the fun and camaraderie of fishing — out for the luck of catching a fish to share later at supper.

Since my family was not reliant upon the bay’s fish and seafood for supper, as some families were, I gave the pamphlet away, but the message came home with me. Some environmental programs and policies reach even a kid, in pigtails and sneakers, on a pier.

Messaging can and does reverberate, but we may do well to widen our audience by going beyond what we currently know and do with our programs, and policies. We might consciously surface our unconscious biases and training, then reach out not only to communities of color who historically and disproportionately live on or near contaminated sites, but also to people who may not access their information from formal text. We might consider publishing low literacy text, large print text, and use sans serif (no curly cue) fonts for greater readability for people who may need the magnifier setting to read our websites. People who use screen readers need text-only options for best use of their speech-output software; we might follow the international World Wide Web 3 Accessibility standards for increasing accessibility on-line and in-print: www.w3.org/standards. We might use the set-up for the closed captioning transcript corresponding to our YouTube videos. We might budget for and regularly hire translators for presentations. We might ensure our offices have wheelchair accessible entries and emergency exits, and that our aisles and bathrooms meet American Disability Act standards.

We might seek to emulate models of environmental equity and inclusion, especially in a new climate where the acronym BLM is more recognizable as standing for Black Lives Matter than the old Bureau of Land Management. We might consciously recruit qualified staff and board members who identify as Black, Indigenous, People of Color (BIPOC), disabled, first-generation, immigrant or LGBTQIA to expand our perspectives, networks, and problem-solving capabilities.

Some of what we are coming to know, EcoNews addressed in its November 2020 issue: Indigenous people’s forest practices of seasonal burning can and are being used to prevent mega wildfires — a perspective shared by Bill Tripp, from the Karuk Tribe Natural Resources Department, in “Our Land Was Taken.” Furthermore, EcoNews addressed the cultural knowledge of prescribed burning being used among the collaborative of the Mid-Klamath Watershed Council, Orleans-Somes Bar Fire Safe Council, and the Western Klamath Restoration Partnership. When cultural knowledge is used as part of policy-making, then we know we have widened our ways of being.

The November 2020 issue of EcoNews also moved beyond what it normally does by providing a bi-lingual Spanish and English Staff Spotlight of Jasmin Segura, Bay Tour Coordinator for Humboldt Baykeeper. Another local media outlet the lostcoastoutpost.com, which posts the EcoNews Report, has been providing COVID-19 reports in both Spanish and English. According to Census 2017, 11.7% of Humboldt County’s population were Hispanic or Latino and 4.6% reported Spanish as being their first language.

The nonprofit LatinoOutdoors supports Latinx families and encourages future environmental leaders. The former BikesThere.com, owned by lifelong cyclist Melanie Williams, collaborated with Alice Birney School, in West Eureka, to provide bike safety workshops and get elementary school kids out in nature. Photo provided by Ali Ong Lee.

Bilingual Eating Fish Safely Guidelines:
• “Comiendo Pescado con seguridad Pautas para Humboldt Bay”: www.humboldtbaykeeper.org/images/PDF/ComiendoPescadoConSeguridad.pdf

Visit us on the web for our latest events and herbal tips.
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Wolf Coalition Launches Challenge

Kimberly Baker, Public Land Advocate

Nationwide Wolf Delisting

On Friday, Nov. 6, EPIC and a coalition of Western wolf advocates filed a notice of intent to sue the U.S. Fish and Wildlife Service, launching a challenge of the agency’s decision to prematurely strip wolves of federal protections in the contiguous 48 states, in violation of the Endangered Species Act. This notice starts a 60-day clock, after which the groups will file a lawsuit in federal court.

The most recent data from the U.S. Fish and Wildlife Service and its state partners show an estimated 4,400 wolves inhabit the western Great Lakes states, but only 108 wolves in Washington state, 158 in Oregon, and a scant 15 in California. Nevada, Utah, and Colorado have had a few wolf sightings over the past three years, but wolves remain functionally extirpated in these states. These numbers lay the groundwork for a legal challenge planned by a coalition of Western conservation groups.

In delisting wolves, the Service ignores the science showing they are not recovered in the West. The Service concluded that because, in its belief, there are sufficient wolves in the Great Lakes states, it does not matter that wolves in the West are not yet recovered. The ESA demands more, including restoring the species in the ample suitable habitats afforded by the wild public lands throughout the West. Indeed, wolves are listed as endangered under state laws in Washington and California, and wolves only occupy a small portion of available, suitable habitat in Oregon. Likewise, wolves also remain absent across vast swaths of their historical, wild, public lands habitat in the West, including in Colorado and the southern Rockies.

Lassen Pack Has Two Litters of Pups

Two female wolves in the Lassen Pack had litters this spring, bringing the total of pups to a minimum of nine. LAS01F, the original matriarch of the family, birthed at least five and LAS09F, her two-year old daughter, had up to four. The new alpha male, who joined the pack last year, sired both litters. The origin of the black male is yet unknown. While multiple litters are uncommon, they most often happen when a genetically unrelated adult wolf joins a new pack.

There is now only one collared wolf in California, LAS09, the two-year-old breeding female of the pack. The yearling male LAS13M, collared this summer, began to disperse from the pack in August. He spent a few weeks about 20 miles from his pack then traveled to Modoc County in late September. In early October he entered Oregon.

This is the fourth litter of pups for LAS01F. Her first litter of four was in 2017, with five in 2018 and four in 2019. Currently the pack consists of three adults, three yearlings and nine pups, bringing the Lassen pack to fifteen.

Hello EPIC!

My name is Matt Simmons and I'm EPIC’s newest legal fellow. I became passionate about protecting the environment thanks to my elementary school science teacher, Mr. Flint, who taught me about climate change and the devastating effect that our current society is having on ecosystems across the globe. In college, I decided that the best way for me to help protect the environment would be to become a lawyer and work on its behalf.

Last May, I graduated from UCLA Law with specializations in both Environmental Law and Public Interest Law. While there, I interned at the Natural Resources Defense Council, participated in UCLA Law’s Environmental Legal Clinic, and acted as a research assistant for a renowned environmental law professor. I also wrote papers on dam removal, green gentrification, and legal personhood for the environment. After I graduated, I was fortunate enough to receive fellowship funding to work at EPIC from the Emmett Institute and the UC Office of the President.

Now that I am at EPIC, I am excited to help advocate for the protection of California’s forests. In particular, to work on matters related to the Endangered Species Act, which is my favorite environmental law. EPIC has a long history of protecting endangered species that I am thrilled to be a part of. I know I have a lot to learn from Tom, Amber, Kimberly, and Rhiannon about how to be a successful environmental advocate. They’ve had so much great success and I am excited to start doing my part to help. I’m also really grateful to all of EPIC’s members who make our work possible and I look forward to meeting more of you over the coming months.

Thank you for your continued support,
Matt
Klamath Dam Removal: What's Different This Time Around?

Mike Belchik, Yurok Tribe Senior Water Policy Analyst

On Tuesday, November 17, 2020 a press conference was held to herald a new agreement that moves Klamath dam removal closer to reality. But wait! Haven’t we heard this before? What’s different this time? Dam removal agreements were reached in 2010, 2016, and again in 2020. What’s different now?

What’s different now is that PacifiCorp and its parent company, Berkshire Hathaway Energy, are publicly committed to dam removal and have filed an application with regulators to actually remove the project. What’s different is that the owner of the dams, Warren Buffett, is now publicly backing dam removal on the Klamath as the right thing to do not only for the river, but for Indigenous people and cultures on the river.

“I recognize the importance of Klamath dam removal and river restoration for tribal people in the Klamath Basin. We appreciate and respect our tribal partners for their collaboration in forging an agreement that delivers an exceptional outcome for the river, as well as future generations. Working together from this historic moment, we can complete the project and remove these dams,” said Buffett at the Nov. 17 press conference.

The world of energy infrastructure regulation is obscure and complex. Intricate rules and procedures govern the regulation of these facilities but they generally fail to take into account the rights of Indigenous people or the systemic wrongs and the slow death of the Klamath River and its fish. For example, even as Yurok and other tribes bore the brunt of impact of the loss of fish, most of their people were not afforded access to electricity from the facilities. No attempt was ever made to compensate tribal people for the hardships put on them by these hydroelectric projects. Furthermore, no amount of compensation could ever make up for the loss of the river and its fish. None.

It was in this context that the Yurok, Karuk, Hoopa Valley, and Klamath Tribes entered the relicensing process before the operating licenses for the dams expired in 2006. All four tribes began to bring up the subject of dam removal in the meetings, but our concerns were brushed off by the company. However, after court battles, and a lengthy negotiation, the Tribe were able to forge an agreement in 2010 with PacifiCorp for dam removal in 2020, with the company paying the first $200,000,000 of costs. This agreement was modified in 2016 after required legislation for the 2010 agreement failed to pass Congress.

The 2016 agreement, known as the amended Klamath Hydroelectric Settlement Agreement (KHSA) called for PacifiCorp to transfer ownership of the dams to a newly created nonprofit corporation (Klamath River Renewal Corporation, or KRRC) who would then remove the dams using the funds PacifiCorp had already collected under the 2010 agreement. The transfer of ownership as well as the decommissioning plans (also known as a surrender application) would all have to be approved by the Federal Energy Regulatory Commission (FERC) in Washington DC.

In 2017, KRRC and PacifiCorp applied to transfer ownership and operating license from PacifiCorp to KRRC. In July 2020, after years of waiting, FERC issued its decision. FERC approved the transfer but added a requirement that PacifiCorp stay on the license. For PacifiCorp, this was a non-starter. PacifiCorp argued that FERC had rejected a central tenet of the KHSA by requiring them to stay on as a co-licensee, which would subject the company to liabilities or cost overruns associated with project removal. A week after the FERC decision, PacifiCorp sent a notice to the KHSA parties stating that it intended to walk away from the deal. It was a dark time and it appeared that 20 years of work by activists, scientists, and Indigenous leadership was on the brink of failure. But failure is not an option. There is no other river to go to. The Klamath is home.

The dilemma was this: If PacifiCorp was pushed to be co-licensee, they threatened to bring out of state regulators into the process, which could cost years of delay or could even fail altogether. If we rejected the FERC order and tried to start over, that too would cause delay. Delay not only increases the plight of the salmon, it has budgetary implications too. The KRRC was already operating and each year of delay could consume a significant part of the funds earmarked for dam removal itself.

We sat down and talked. PacifiCorp is owned by Berkshire Hathaway, which is a huge corporation owned by Warren Buffet. We got governors involved. Governor Newsom sent a helpful letter to Warren Buffet who owns Berkshire Hathaway, which owns the dams on the Klamath. Congressman Huffman held field hearings. Most importantly, we were able to sit down (via Zoom) and talk with Berkshire Hathaway leadership. We all struggled to find a way through this regulatory mess created by the FERC decision.

In the end, we were able to find a way forward. The way forward involved Berkshire Hathaway compromising on its position to not move the decommissioning application forward with its name on it. The states of California and Oregon stepped in and agreed to assume co-licensee status once the decommissioning order was issued by FERC. KRRC will continue its work to actually bring these dams down. The states of CA and OR, as well as Berkshire Hathaway, agreed to shore up the removal funding and cover cost overruns, given how unlikely those are.

The wrongs perpetuated on the Indigenous peoples of the Klamath are ghastly, and this one act of restorative justice will not right all those wrongs. But it’s a good down payment.
Death, Victim-Blaming, Climate Chaos and Wetlands

Colin Fiske, Director of the Coalition for Responsible Transportation Priorities

Over the last twelve months, at least four people have been killed while walking or biking on Broadway in Eureka. Ashley Madonia was killed last December while walking. Kelsey Diffin was killed in March while pushing a stroller. Thomas Burns was killed in October while riding a bike. And a person whose name has not been reported was killed while riding a bike just a few weeks before that. There is a full-blown crisis on Broadway, and it is incumbent upon Caltrans and the City of Eureka to take immediate steps to keep more people from dying.

In order to fix the problem, we first have to identify the cause. People have been dying in high numbers on Broadway for many years, yet officials have done little in response. One reason is that in the wake of almost every incident, media and law enforcement suggest that the victim was to blame for their own demise. If this were true, and the cause of all these deaths were just irresponsible behavior on the part of the victims, then officials would be conveniently absolved of responsibility.

So let’s be absolutely clear: the cause of the safety crisis on Broadway is not the behavior of the victims. We know this in part because, while people are hit and killed by cars throughout the region, these tragedies are disproportionately concentrated on Broadway. There are many other places in the city and the county where people walk and bike as much as, or more than, they do on Broadway. And there is no reason to believe that people suddenly start taking more unnecessary risks when they step or pedal onto Broadway.

Additionally, the deaths and injuries on Broadway are part of a nationwide trend. Pedestrian deaths have increased by 50% in the US over the last decade, and bicyclist deaths have increased by over 30%. These patterns are not correlated with increased levels of walking or biking. They are correlated with poor street design, and with increasing numbers of large, dangerous vehicles on the road. And they disproportionately impact people of color, seniors, low-income people and people with disabilities. These are simple statistical facts which cannot be explained away by individual patterns of behavior.

All of which leads to the inevitable conclusion that the problem is Broadway itself, not the actions of the people who are getting killed there. Which, of course, is the same conclusion any reasonable person would draw after taking even a cursory look at the street. It is designed for cars and trucks, and not for anyone else.

Over the longer term, the Multimodal Corridor Plan proposes to turn much of Broadway into one-way “couplets,” much like 4th and 5th Street. The potential advantages of this plan stem from the fact that it would offer much more right-of-way to work with, so more bike, pedestrian and transit facilities could be added without decreasing the number of car lanes. But the disadvantages are also substantial, including the fact that the current plans call for road construction in coastal wetlands.

Protection of these coastal wetlands has been a decades-long battle for many local environmentalists. So it’s critically important to emphasize that, in spite of the Multimodal Corridor Plan, safety for people walking and biking does not require wholesale wetland destruction. For the sake of our community, our wetlands and our climate, environmentalists must stay united and focused on improving safety while minimizing impacts. Right now, that means immediate fixes to the worst safety problems on Broadway today. In the future, it could mean more radical long-term changes to Broadway’s existing right-of-way or finding new routes and designs for a future couplet. That’s a question that may take years to answer.

Whatever happens, we shouldn’t forget Ashley, Kelsey, Thomas, and everyone else who’s been killed or injured on Broadway. We should remember also the growing number of victims of fires, storms and floods, both locally and around the world. It’s increasingly clear that in some ways, the safety crisis for people walking and biking is a critical component of the climate crisis. Fixing Broadway (and the rest of our dangerous streets) should be a priority for all of us.
Winter Programs!
RRAS Presents Online Programs:
Christmas Bird Count P(r)ep Talk and Photo Sharing
December 11, 2020 at 7 pm

(Above) Finding surprises in birds and nature © Rahul SN.
This year’s Christmas Bird Count will be unlike any other in the count’s 120-year history. COVID has affected us all – but the Count will still happen!

Each individual Christmas Bird Count is performed in a circle having a 15-mile diameter. It is a fun event, held between December 14 through January 5, involving tens of thousands of volunteers throughout the Americas who may brave snow, wind, or rain to take part in the effort. At least ten volunteers, including a compiler to manage things, count every bird they see in that circle. National Audubon and other organizations use data collected to assess the health of bird populations and to help guide conservation action. It all started on Christmas Day 1900, when ornithologist Frank M Chapman, an early officer in the then-nascent Audubon Society, proposed a new holiday tradition – a “Christmas Bird Census” that would count birds during the holidays instead of hunting them! The Count is the longest-running citizen science survey in the world.

Veteran Christmas bird counter Ken Burton will lead an interactive discussion of the bird count’s various aspects, including its history, methodology, and scientific value; tips for counters, especially documenting your effort and estimating bird numbers; local counting opportunities; and bird identification as requested. The content and direction of the program will be driven largely by participant input. We can discuss anything relevant to the count; what would make you a better counter? The program will conclude with an opportunity to share one or two of your local bird photos from the past year, so pick out your favorites!

Ken Burton has been involved with RRAS since moving here in 2005. He is the author of Common Birds of Northwest California and A Birding Guide to Humboldt County, both published by RRAS. He coordinates the Chapter’s Saturday morning Arcata Marsh walks and has participated in the Christmas Bird Count almost every year since the mid 1970s, including counts in Arizona, California, Indiana, Mexico, and New York.

Humboldt Bay National Wildlife Refuge (HBNWR): – The Old and the New – January 8, 2021 at 7 pm
Retired Refuge Manager Eric Nelson and new Refuge Manager Cashell Villa will discuss the history of the National Wildlife Refuge System, key points where Audubon fits in, the history of HBNWR, and where HBNWR and the Refuge System might be headed into the future.

Eric is from Sonoma County. He received his BS and MS in Wildlife Management from HSU and worked at refuges in AK, WA, OR, WY, and CA. The last 17 years of his career were spent as Refuge Manager at HBNWR Complex. In retirement he’s enjoying family, birding, traveling, hiking, camping, biking, and politics (just kidding).

Cashell is from San Luis Obispo, California and received her BS in Wildlife Biology from the University of Alaska, Fairbanks. She has worked as a biologist in refuges across Alaska, including Arctic, Tetlin, Selawik, and Yukon Delta. She served as the Deputy Refuge Manager at Hakalau Forest National Wildlife Refuge on the Big Island of Hawaii until late 2019, when she accepted the Refuge Manager position at HBNWR Complex. Cashell and her family enjoy hiking, biking, camping, traveling, and exploring their new Humboldt Bay home.

For more information about programs or the Christmas Bird Count, visit our website at rras.org.

Photo by Leslie Scopes Anderson.

First Humboldt County Record of Roseate Spoonbill!
By Alex Benn
On the morning of October 31 around 9 am before heading into work at the Lanphere Dunes, I spotted an unusual-looking bird in the Mad River Slough. Normally I start my morning with a quick glance at the shoreline to see what species are out and about, but this bird was not any of the usual fauna I’m used to seeing. While parked on the side of the narrow road right before crossing the bridge to enter the dunes, I watched her/him for about two minutes and began to take notes on the anatomically prominent features. I remember noticing the tall, flamingo-like body; dull pink coloring on the backside; and long, duck-like bill. Admittedly, I am not an expert birder when it comes to species outside of Northern California, so I decided to take a 30-second video on my phone (see video at rras.org) and make an identification after I got home from work. Unfortunately, I didn’t have my professional camera equipment with me, so I had to settle for a less-than-perfect picture with my phone (see below).

Later that evening I identified the bird as a juvenile Roseate Spoonbill, which according to the range map in my bird book, posed more questions about why s/he was here. I decided to email Mark Colwell, my ornithology professor from HSU, in regards to why s/he was so far out of normal range – the Pacific Coast of Mexico. The vast majority of Roseate Spoonbill records are from the Salton Sea, with some vagrants recorded in other Southern California counties. The only other Northern California record of this species is from Monterey County, present Jan-Feb 1978. After some much-expected doubt about whether I had identified it correctly, it was confirmed by Rob Fowler to indeed be a Roseate Spoonbill. I had no idea at the time that what I was looking at was a rare bird, but thanks to Humboldt State wildlife professors, I’ve learned to bring my binoculars with me whenever possible.

Unfortunately, of the many times I crossed over the bridge that day, that was the only time I saw the spoonbill. The sighting was submitted to the California Birds Record Committee for review on November 4, 2020.

In the following few days, many birders all around the county were on the lookout, but s/he was not to be seen again until photographed by a California Fish and Wildlife game warden along the Eel River near Fernbridge on November 8. Birders also looked for her/him in the Eel River delta but s/he was not found. Maybe s/he’s still out there, or maybe s/he decided to head back to warmer climes!

(Below Left) Roseate Spoonbill by Alex Benn.
(Below Right) Roseate Spoonbill in Louisiana by Joyce E Ritchie.

Quote from What the Robin Knows, by Jon Young
According to birdlanguage.com this is a book about how “deep bird language is an ancient discipline, perfected by Native peoples the world over. Finally, science is catching up…”

After travelling to the Kalahari, Young noted a reflection on San culture by a San Bushman in Botswana:
“If one day I see a small bird and recognize it, a thin thread will form between me and that bird. If I just see it but don’t really recognize it, there is no thin thread. If I go out tomorrow and see and really recognize that same individual small bird again, the thread will thicken and strengthen just a little. Every time I see and recognize that bird, the thread strengthens. Eventually it will grow into a string, then a cord, and finally a rope. This is what it means to be a Bushman. We make ropes with all aspects of the creation in this way.”

Young notes he “was able to experience (the) relationships between the San and the land directly. The San are the most nature-bonded people I’ve ever spent time with.”

Please view this website for information on the struggle for survival by the Indigenous, San Bushmen in Botswana:
www.survivalinternational.org/tribes/bushmen.
The Ups and Downs of Tail Pumping

By Ken Burton

Recently, while searching unsuccessfully for a rare bird in the Loleta Bottoms, I had plenty of time to observe flocks of American Pipits. That led me to ponder and subsequently do some research on the adaptive value, if any, of tail pumping by pipits and other birds.

The American Pipit is perhaps our most numerous winter grassland bird. Anyone who has watched walking or perched pipits has noticed that they continually pump their tails up and down for no obvious reason. (See my video on the RRAS website at rras.org.) Other local birds known to do this include Black Phoebes, Spotted Sandpipers, and Palm Warblers. In some cases, such as with Empidonax flycatchers, the predominant direction of tail pumping is actually a useful identification tool. It would seem that this activity would waste valuable energy and perhaps even draw unwanted attention to the bird. So why do they do it? Well, it turns out we really don’t know. There are a lot of hypotheses, some of them conflicting, but very little literature.

Here are some of the prevalent hypotheses:

• It helps the birds maintain balance while perching.
• It’s a means of social signaling, keeping other individuals of the same species at a comfortable distance, helping maintain flock cohesion or alerting others to danger.
• It facilitates prey capture by flushing prey into motion, like a mockingbird flashing its wing patches or a Snowy Egret waving its foot. (The fact that tail pumpers are pretty much all “predators” does lend some credence to this idea.)
• It helps camouflage birds against moving backgrounds such as flowing water and waving grass.
• It’s a way of releasing nervous energy, just as bill-wiping or a cat twitching its tail might be.
• It’s a means of signaling to potential predators, either to indicate that the bird is aware of their presence, healthy, and ready to flee (and therefore not worth chasing) or to draw attention away from more valuable parts of the body. Many lizards are well known for wriggling their tails, which can be severed and regrown, to divert attack away from the head. Birds similarly can shed and regrow their tails and are, after all, really reptiles. Tail pumping in the presence of a predator could also signal danger to other potential prey.

Let’s think about that last one for a moment. If it has merit, the behavior should occur more frequently or more vigorously in the presence of a predator. Do birds do it at all when they feel completely safe? We have no idea what they’re doing when we’re not watching and our mere presence (as potential predators) could trigger it. One might presume they do it at a baseline level all the time in a “better-safe-than-sorry” mindset, but if that were the case, it wouldn’t take long for predators to figure out (in an evolutionary sense) that it didn’t signal awareness, although it could signal general health.

In the only real study of this behavior I could find, Gregory Avellis studied tail pumping in Black Phoebes and found that pumping rate did not depend on where the phoebes were perched or whether they were foraging. He also found that playback of the Black Phoebe song did not affect pumping rate, even when it elicited other territorial reactions. However, Avellis found that playback of Cooper’s Hawk calls caused pumping rate to triple! He concluded from this that the phoebes were saying, in effect, “Don’t bother trying to catch me, I’m on to you!” (although I wouldn’t rule out the nervous-energy-release hypothesis, based on these results).

Tail pumping, like other repetitive behaviors such as wing-flicking (e.g. by kinglets), remains something of a mystery and may serve multiple functions, different functions in different species, or even no function at all. It could be merely an evolutionary holdover that once had some adaptive value in some ancestral species but no longer serves a purpose. The one thing it is safe to say is that it’s not maladaptive or it would have been selected out of existence. It evidently does not consume significant amounts of energy or attract predators.

Obviously, there’s still plenty of mystery and room for discovery out there in the natural world. If you pay attention and think outside the box, maybe you can come up with a hypothesis for the function of a previously unexplained behavior. Write to The Sandpiper editor Gisèle Albertine at giseleandco@gmail.com and let us know what mystifies and fascinates you about bird behavior!

Our Chapter was started by successful action to re-route the Highway 256 bridge over Humboldt Bay to avoid the egret rookery. Our next major action was successfully securing a settlement that allowed us to acquire tidallands that we later sold to the Fish and wildlife Service to expand Humboldt Bay National Wildlife Refuge and essentially double our investment. We now have a wetland and sanctuary fund ready to put into action more quickly than public funds to protect important bird and other wildlife habitat.

As I look back over my 38 years with this chapter, the number of actions that we have taken on behalf of bird conservation is impressive. Also impressive is the loss-to-win ratio. The outright wins are the proactive, positive things like establishing an Important Bird Area and raising it to hemispheric status and weekly Arcata Marsh walks. Wins on projects that we oppose are more mixed. Stopping the traffic congestion relief bypass, (aka Waterfront Drive Extension) and acquisition of the development rights over Wigi Wetlands was pretty much a total win. Other action, like the Adesa Organic cannabis operation, less so.

We joined Friends of the Mad River in an appeal to the Humboldt County Board of Supervisors to reject the Planning Commission's approval of the Adesa Organic industrial cannabis production facility eight miles south of Maple Creek, within two miles of a golden Eagle nest. The appeal itself was not successful. The result was a project that was scaled back from the original proposal. The applicant probably got what they expected, but less than they hoped for. Typical of environmentally impactful development proposals, the proponent almost always tries for as much as they hope they can get, then scales back to what they expect to get as a show of “environmental consciousness” and reasonableness. Without pushback, these projects would not be scaled back. We should consider the combined effects of this reduced impact a success, yet strive to do better.

The Adesa Organic case is one example of the coming “green rush” to the rural working lands of Humboldt County. Unfortunately, the county’s cannabis land use ordinance encourages this green rush sprawl by requiring that cannabis cultivation be on a relatively small part of large parcels, is restricted by total canopy area per watershed instead of direct water use restrictions, and is taxed based on canopy area rather than yield. This generally results in widely dispersed, intense agricultural operations in remote areas of Humboldt County. That, in turn, has the potential to fragment wildlife habitat. The problem, then, is not cannabis or legal cannabis growers, it is our system of regulation. In order to fix it, we will need to carefully set up the tripod of science, education, and law.

Within our chapter’s membership, we have the combined experience, knowledge, and wisdom to build a substantial tripod and pursue significant conservation action, if we all participate. Feel free to contact me at clarkjimw@gmail.com regarding any of our ongoing efforts to protect birds and other wildlife and their habitats.

### Humboldt Bay Critical to International Shorebird Conservation

By Mark A Colwell, Wildlife Department, Humboldt State University

Shorebirds, true to their name, frequent edges of productive wetlands year-round, including arctic tundra, prairie marsh, and coastal estuaries. These habitats provide abundant invertebrate prey (i.e., food) necessary to fuel successful episodes in the annual cycle, such as breeding and migration. Dense shorebird flocks are especially impressive as they forage across tidal flats or wheel in unison to evade a predatory falcon. Although many hundreds to thousands of shorebirds concentrate before continuing their migratory flights. These concentrations create challenges to conservation of populations because sites that are attractive to shorebirds are equally valued by humans. Moreover, human population density is highest along the world’s coastlines, which exacerbates conflicts.

Worldwide, shorebirds migrate along eight principal flyways connecting breeding and nonbreeding habitats. Humboldt Bay is a special place for shorebirds along the Pacific Americas Flyway. Nearly one quarter (52) of the world’s 215 species of shorebird have been observed in the region over the past 60 years. Some (9) of these species are rarities (or “vagrants”) that have wandered outside their typical flyway. For example, in late summer 2018, a Wood Sandpiper took a left turn while departing its Siberian breeding grounds on the East Australasian Flyway and ended up in the wetland adjacent to Centerville Beach. Stan Harris’s Birds of Northwestern California (2005) details other rarities that likely took a similar route: Lesser Sand-Plover (Jul 2005) and Common Greenshank (Aug 2001). Other species, such as White-rumped Sandpiper (Oct 2018), wander “off course” within North America.

However, most of the 52 species that have been recorded in the Humboldt Bay area are common or abundant, depending on the time of year and habitat. For instance, a winter population of 8,000 Marbled Godwits frequents tidal flats and pastures adjacent to the bay. This local aggregation derives from two distinct subspecies: a small population (2000) that breeds on the Alaskan Peninsula and the prairie-breeding race (160,000).

Recent work tracking Alaskan godwits marked with small radio transmitters suggests that individuals from this small population spend most of the year on Humboldt Bay. Godwit Days, the local annual festival celebrating birds and birding, could not have been a better namesake recognizing the international nature of migratory birds.

Shorebirds, like other migratory organisms, illustrate the global perspective needed for successful conservation. Specifically, shorebirds migrate annually between breeding and wintering habitats. Along the flyways, they rely on healthy ecosystems (i.e., estuaries like Humboldt Bay) to provide the food essential to complete the chain of events that link the annual cycle. The analogy of the chain extends to the conservation of entire populations: they rely on the connectivity of critical wetlands, with the breakage of a critical link rendering populations vulnerable to decline and extinction. Specifically, given the abundance of shorebirds year-round that occur on Humboldt Bay, it is essential that conservationists work to conserve habitats and minimize human activities that degrade these areas critical to individual survival and reproduction.

Humboldt Bay is a comparatively “pristine” estuary with large amounts of high-quality habitat that support a rich shorebird community. But human activities, even seemingly small in extent or infrequent in occurrence, can have serious impacts on wildlife populations. Sea level rise associated with global warming is projected to greatly diminish the extent of tidal flats available to foraging birds. Proposals to expand oyster culture activities in Arcata Bay will only exacerbate this habitat loss. Humboldt Bay has been designated the highest level of recognition (i.e., a site of International Importance) under the Western Hemisphere Shorebird Reserve Network owing to its diversity (52 species) and incredible abundance (850,000) of shorebirds year-round. “Sustainable” development rests on the assumption that benefits derived by humans (e.g., oyster culture, fishing) from such productive habitats do not compromise the populations of wildlife that rely on the same healthy ecosystems. The challenge is to ensure that the principle of sustainable development is not a mere catchphrase but backed up by earnest conservation efforts.

(Above) Willet and Marbled Godwits on Humboldt Bay by Mike Anderson.
Avian Botulism Response in the Time of COVID
By Marie Travers, January Bill, and Monte Merrick, Co-directors, Bird Ally X
In 2018, a severe avian botulism outbreak spread across the Lower Klamath Basin on the Klamath Basin National Wildlife Refuge (KBWR). Arcata-based rehabilitation and wildlife response organization, Bird Ally X (BAX), was tasked by the US Fish and Wildlife Service with mounting a response. This involved building a field hospital for impacted wildlife just off State Line Highway 61 that divides Oregon from the part of California that is more Sagebrush Rebellion than treehugger.

Our response was set in motion by one of BAX co-founders and co-directors January Bill, who has extensive experience in the field of emergency wildlife response, especially with wildlife impacted by oil spills. She brought in Marie Travers, another BAX co-director with similar experience, to co-manage the response.

Since the 2018 response, BAX has partnered with KBNWR to provide emergency rehabilitation during botulism outbreaks. The first year, we cared for 494 birds; in 2019, it was 233. But just like so much of life in 2020, this year’s outbreak was unprecedented in scope and scale, epic in both volume and complexity. Long-time staff say it was the worst botulism event at the wildlife refuge in decades, with an estimated 60,000-plus birds perishing due to heat, drought, and lack of water.

Avian botulism is caused by a type (c) of the bacteria, Clostridium botulinum, that is commonly found in soil. During dry, hot spells around the world, as well as in the American West, as water levels drop and water temperatures rise, insects and other invertebrates experience a die-off. Their remains, along with nitrogen and other common pollutants, create a fertile ground for rapid growth of the bacteria. Waterfowl and shorebirds who feed on these elements become sick. Avian botulism is neuro-toxic, causing paralysis and death. Infected dead birds contribute to the virulence of the outbreak, as their carcasses become nutrients for the bacteria. Because lack of water is at the heart of the problem, managing the conditions is fraught with all of the political obstacles that water wars in the West have historically presented.

COVID-19 made the response much more complicated. Our plan was to keep our bubble as small as possible by hiring interns, rather than relying wholly on volunteers. As a staff of two, we knew it would be a long haul to October and we had to stay healthy. With one intern at the outset, we hired another after a few weeks. We also had a few incredibly dedicated volunteers who have worked every botulism response with us. They drove up from the Bay Area and paid for their own food and lodging to join the effort. A few local dedicated volunteers who have worked every botulism response with us. They drove up from the Bay Area and paid for their own food and lodging to join the effort. A few local volunteers helped at the hospital, cleaning, doing laundry, and entering data. This small but dedicated team consisted of two to nine people working each day. By comparison, during the 2007 Cosco Busan oil spill in San Francisco Bay, 400 volunteers cared for 1,100 birds.

The first patient this year came in on July 17, a full month earlier than in previous years. Area wildfires restricted bird collection, allowing the disease to spread unchecked at the beginning of the response. Once search and collection were in full force in early August, the number of birds coming in skyrocketed, averaging 75 birds a day. One day, we received 167 birds. Soon, we had hundreds of ducks and shorebirds at the field hospital to care for and were releasing birds on a daily basis to make room for the new ones arriving each afternoon. Our days resembled “Groundhog Day”: feed birds, clean birds, swim birds, move birds, dry birds, intake birds, and release evaluations. Each new day also threw us some kind of crazy curveball.

Just like so many hospitals treating coronavirus patients, our waterfowl hospital reached maximum capacity. With so many birds coming in, we spent nights fundraising to buy additional enclosures and pay for the interns now desperately needed. Miraculously, every single time we asked for help, we got it. Organizations and individuals stepped up in ways we could never have imagined. People offered up pools and affordable intern housing options. Volunteers sponsored intern stipends and paid for vital equipment. And several nonprofits – including Friends of Malheur NWR, multiple Audubon chapters (Klamath Basin, East Cascades, Willapa Hills, and Mt. Diablo), and so many other awesome organizations – made significant donations that saved birds and our sanity. It was truly inspiring. Despite COVID, it worked. During this year’s response, 21 humans were able to care for 3,059 birds in 75 days.

If all so-called stake-holders are each afforded their own piece of the Klamath River, then preventing the conditions that lead to avian botulism outbreaks is a tricky path. Waterfowl hunters and irrigation districts that deliver water to agri-business tend to blame the Endangered Species Act (ESA). The Klamath was once home to the third largest run of Coho salmon in North America and three federally endangered fish indigenous to the Klamath Basin historically used the entire 253-mile river. Both agri-business and hunting advocates fault the ESA with limiting water availability in the Klamath Basin. With wetlands as drastically reduced in the Central Valley and high desert north of Shasta as they are today, compared to 150 years ago when the Klamath was first being divvied up like loot, the Refuge in the Lower Klamath Basin is critical to wildlife, especially Pacific Flyway migrants, Mallards, and other ducks that hunters like to see in great abundance. Meanwhile, Native American tribes along the river, such as the Yurok and Hoopa nations, have a deep stake in the survival of endangered salmon; a physical and cultural relationship that stretches back to time immemorial.

For our part, at BAX, we are here for one thing first and foremost: to alleviate suffering in injured wildlife by providing the care they need. For more information about this response, please visit birdallyx.net/bax-botulism-response.

Donations to support relief efforts are always welcome – contact the Humboldt Wildlife Care Center at 707 822-8839 or mail a check to HWCC, 2182 Old Arcata Rd, Bayside, CA 95524.

Left: Duck patients in care at the field hospital. Photo courtesy of Bird Ally X. Watermarks: Mallards.

Southern Humboldt Wildlife Photographer Captures All Three Local Types of Northern Flickers
By Ann Constantino
In the fall, you can hear their loud, piercing call almost anywhere in Southern Humboldt. Northern Flickers are unusual for a woodpecker in that they eat ants and bugs off the ground, so that is where we often see them. They are known for their loud territorial drumming in the spring, sometimes plaguing local homesteaders.

Here you can see the three types of Northern Flickers who live in Humboldt County. The Red-shafted is the most common. Both sexes have a gray face with reddish-orange under the tail and wings; the male has a red malar or moustache and no nape markings. The least common is the Yellow-shafted, more an Eastern bird. Both genders have brownish faces and yellow under the tail and wings. The male has a black malar and a red nape marking. Also shown is a hybrid intergrade, showing features of both Yellow-shafted and Red-shafted, with the red malar and red nape marking. All three birds were photographed near Garberville on the South Fork of the Eel River in October 2020.

(Below L-R) Red-shafted, Yellow-shafted, and intergrade Northern Flickers by Ann Constantino.
Humboldt Bay King Tides
Photo Initiative: Dec. 13-15 and Jan. 11-12

Jennifer Kalt,
Humboldt Baykeeper Director

The highest tides of the year - known as King Tides - are coming on December 13-15 and January 11-12. Please join our King Tide Photo Initiative to help document rising sea levels around Humboldt Bay!

The highest tide of this winter is predicted to peak at 8.7’ at 9:56 a.m. on Sunday, Dec. 13 at the North Spit tide gauge. The high tides could be even higher depending on rainfall, atmospheric pressure, and wind (see below for a complete list of dates and times).

In the Humboldt Bay area, relative sea level is rising at twice the average rate along the West Coast, because the ground beneath the bay is sinking due to tectonic activity as fast as the sea is rising. King Tides are about a foot higher than typical high tides, providing a glimpse of what to expect as sea level rises. In the year 2030, the monthly high tides will be approximately one foot higher than they are today.

We need to plan for sea level rise in areas like U.S. Highway 101 just north of Eureka, which is expected to flood once a month by 2030.

By capturing images of these extreme high tides, scientists and coastal planners hope to gain insight into how rising sea levels will impact coastal areas in the future. The King Tides Photo Initiative is a great opportunity for volunteers to contribute to a long-term dataset, while helping inform residents and decision-makers about the need to plan for the coming changes to our natural and built environments.

Baykeeper volunteers have been documenting King Tides since 2011. To get involved, all you need is a camera or a smartphone to submit your photos to KingTidePhotos@gmail.com.

Be very cautious of rising water, eroding shorelines, and flooded roadways.

Recommended locations to observe high tides:
- Halvorsen Park and the F Street boardwalk in Eureka
- Eureka Slough behind Target
- Fisherman's Statue on Woodley Island
- Arcata Marsh & Wildlife Sanctuary
- Mad River Slough Bridge on Highway 255 in Manila
- Liscom Slough on Jackson Ranch Road in Arcata
- Fields Landing and King Salmon.

The tides in these locations vary in both height and peak time. Check your favorite tide tables or NOAA’s tide predictions for various locations.

King Tide predictions at the North Spit:
- Mon. Dec. 14: 10:56 am
- Tues. Dec. 15: 11:21 am
- Mon. Jan. 11: 9:30 am
- Tues. Jan. 12: 10:20 am

Little Lake Industries Cleanup
On October 21, the Arcata City Council approved a federal grant application for funding to clean up dioxin-contaminated soil at the former Little Lake Industries lumber mill on South 1 Street. This cleanup has been a long time coming. In 2015, a major dioxin hotspot was discovered in bay sediments at the mouth of Butcher’s Slough, which flows through the former mill site, and we have been pressing for a cleanup of the City-owned property ever since. This site is not the only source of dioxins in Butcher’s Slough, but this cleanup is a big step in the right direction. And it may lead to a much-needed dog park, which has been proposed on the site.
Disclaimer: This is not an official foraging guide. Before harvesting or consuming anything found in nature please consult an expert or a well trusted field guide. The Humboldt Bay Mycological Society is a good resource: www.hbmycologicalsociety.org

Rob Bray

Common creatures we often see inhabiting the forest floor are mushrooms. They come in different sizes, shapes, and colors. Some are good to eat, many just don’t taste good, others will make you sick, and a small number of mushrooms can kill you. Here on the north coast of California we have several mushrooms that are great table fare. The type of trees in the forest will determine what mushrooms grow there, and the major trees that are associated with mushrooms commonly foraged in Northern California vary by region. On the coast, it’s Sitka spruce, Douglas fir, and bishop pine, but when foraging inland, it’s Douglas fir, tanoak, ponderosa pine and lodgepole pine. All but one of the mushrooms featured here are found near Sitka spruce.

When identifying a mushroom, there are several factors to take into account, but smell, taste, and spore print color are the most important.

Chanterelles are one of the most popular mushrooms that people forage for. Chanterelles can be identified by the forked wrinkles that run vertically down the stem. Other common features of chanterelles are their apricot smell and their string cheese-like texture when pulled apart. Chanterelles can be found nearly year round close to the coast due to the moisture from the fog and rains. Inland, they are found mainly in the fall.

There are two types of chanterelles on the coast. *Cantharellus roseocanus* and *Cantharellus formosus*. *Cantharellus roseocanus*, aka rainbow chantrelle, has a more robust stem and is found summer through fall. *Cantharellus formosus* or golden chantrelle, is found summer through winter on the coast. Both are yellow-orange gold in color. Inland, there is another chanterelle, *Cantharellus subalbidus*, the white chanterelle, which grows in old growth forests with madrone, Douglas fir, hemlock and pine. The golden chanterelle can be found inland as well. There is a purple or blue chanterelle that is rarely found inland in the winter, usually growing near black trumpets, another prized mushroom for table fare.

Another popular foraged mushroom that is found in northern California is the king bolete, also called porcini. The Boletus species contains many different mushrooms, but what makes them unique are their sponge-like pores instead of the typical gills that most mushrooms have. There are three types of king boletes that are foraged for in Northern California. On the coast there is *Boletus edulis* which is found mainly with Sitka spruce and Douglas fir. The other king bolete found on the coast is *Boletus granedulis* which is larger and found with bishop pines. Both are found in the fall to early winter. Inland, the *Boletus rex-veris* is associated with ponderosa pine and lodgepole pine. King boletes are very susceptible to bugs. When you find a large one, if it is soft in places it could be full of bugs and not great for the table. They can grow quite large and usually if you see a big one, it can lead to more growing nearby. Porcini are great to dry and crush to powder for soups or flavored salts. An indicator and a common mushroom seen while foraging for king boletes is the unmistakable *Amanita muscaria* which has the red cap with white dots. It is poisonous, but not deadly, and is very photogenic so feel to take some pictures to share.

Continued on next page
Continued from prior page

The oyster mushroom, *Pleurotus ostreatus*, is common to Northern California in the fall. It is a decomposer so it will be found on dead trees and logs. A common name is angel wings because oyster mushrooms are white and don’t have a typical stem so they look like wings attached to a dead tree or log. Many people grow oyster mushrooms at home for food because they are easy to cultivate. Wild oyster mushrooms don’t last long, so you usually want to eat them the same day they are picked or within a day or two if they are refrigerated.

One of my favorite mushrooms to eat is the hedgehog mushroom also called sweet tooth. In Northern California we have two varieties, *Hydnum repandum* and *Hydnum umbilicatum*. *Hydnum repandum* is the larger variety found near the coast, in mixed forest of spruce and fir. Hedgehog mushrooms are really easy to distinguish because instead of gills they have little “teeth” like a brush. *Hydnum umbilicatum* is the smaller species which resembles an innie belly button and is found inland with tanoak. It tends to grow in scattered clusters compared to its larger sister, which grows solo or as a pair.

The black trumpet mushroom, *Craterellus cornucopioides* (probably my favorite to eat, next to morels), is related to the chanterelle, but smaller and more delicate. It is called the blue cheese of the woods for its smell and flavor. Sometimes called the black chanterelle, it is found in the winter after heavy rains, usually on slopes with runoff debris like leaves and sticks from tanoaks, beech and manzanita. It grows close to the ground usually in clusters that resemble a bouquet of flowers. They can be a little more difficult to clean, but the reward is worth it. Another good reason I like black trumpets is they dry well and reconstitute with the same texture as fresh ones.

There are several other good species to forage for, but this should be enough to keep you busy as you learn the different mushroom creatures found on the forest floor and on dead trees. Here are some good tips and tools to have while foraging. First, you need a good container for carrying your mushrooms while you’re hiking through the forest. A mesh bag, a bucket with nickel size holes drilled in it, or a basket are the best options, but a paper bag will work if you’re in a crunch. Stay away from plastic bags because they trap moisture and will cause your mushrooms to become too wet and soggy. I often use a mesh bag because it allows spores to drop while I’m hiking so there may be more growing the next season. Another important tool is a knife or scissors -- the ones used to trim Cannabis work well. A brush to help clean off dirt and debris from your mushrooms is useful, too. You can find mushroom foraging knives locally or online that have a brush on one end. A pocket mushroom identification book can be a good tool, too, but usually I’ll take pictures or bring the mushroom home for later identification. Water and a compass are essential if you’re going to be going long distances deep in the woods. Also, if you can, go with someone that has some experience so you can learn how to find and correctly identify the mushrooms you’re after. There are local groups and good online groups that help people identify mushrooms and direct you to locations where you can find certain ones. California is pretty open regarding mushroom foraging, but check with local regulations to be sure. Most national forests require a permit if you’re gathering commercial quantities. No permit is needed for personal use up to one gallon per species and up to only three species at a gallon each. No permit is needed on private property. Get out and hike in the forest because there are thousands of mushroom creatures along the forest floor in different shapes, sizes and colors.
Ethical Fungal Foraging

Disclaimer: This is not an official foraging guide. Before harvesting or consuming anything found in nature please consult an expert or a well-trusted field guide. The Humboldt Bay Mycological Society is a good resource: www.hbmycologicalsociety.org

Editors Note: The NEC believes that respectful foragers should ask permission before entering or collecting anything living or dead on another's property, including on public lands.

Max Brotman, Guest Author

WHAT ARE THE IMPACTS OF MUSHROOM PICKING?

As with many ecological questions, the answer is... it depends. Fungal life cycles are diverse. To understand the impacts of harvesting we have to look at each species individually, and know the habitat enough to gauge how they are doing. Thankfully, many of our most delicious mushrooms are abundant, globally and locally. Long term studies have shown that there are zero impacts on the abundance of several commercially harvested species in harvested areas, either picked or cut. Alternatively, there are rare species that are extremely impacted. Lion’s Mane (Hericium erinaceus) is uncommon in the wild and is a threatened species in some places. Some species grow only in old growth forests or other rare habitats. Other species are very slow growing and the fruitbody can persist for years, including popular medicinal mushrooms in the Ganoderma genus, like some reishis and artist’s conks. It comes down to understanding the lives of the fungi.

Many of the best edible mushrooms are abundant in our disturbed forests. Logging, skid trails, clear cuts decades ago, and subsequent planting of timber species result in the abundance of some species, and the reduction of others. They are reacting to us, and we to them. Most of the forests here are at an early point in the process of succession, the continuum between massive disturbance and old resilient ecosystems. Often the spots where I find the most mushies are right next to the trail. The sidecast piles of earth from road building frequently have choice edibles growing in them. We have created the conditions for these species to thrive. Studies have shown us that picking mushrooms, at least some of the common edibles, does not adversely affect their success. We are even perhaps helping them spread spores by carrying them around, although this nice idea is not proven. Yet, there are ways to be an ethical mushroom hunter, and they revolve around relationship and understanding.

ASKING PERMISSION, GIVING THANKS, MAKING FRIENDS.

By asking permission I don’t mean the current landowner. I mean the mushrooms and the forests themselves. This idea may seem admittedly odd from the perspective of our dominant culture, but is something that many traditional gathering cultures believe is necessary.

I pluck chanterelles (Cantharellus spp), following the stipe into the soil and gently popping it out. Same with boletes. Afterwards, I’ll shave the bottom with a knife to remove the parts covered in soil. I prefer to clean them as I pick, so I don’t get any soil in the bag. Hedgehogs (Hydnum repandum) are good to pluck similarly, but sometimes they have a little mushroom ready to take their place at the base. If you slice it off the second one can grow. Hedgehogs are slow growers, and can reach a massive size. Treat a hedgehog patch as a garden, picking them when they are large and ready. Leave little ones to get bigger and come back later.

Porcini (Boletus edulis) are the opposite, they swell up in just a day or two, and will start to spoil a day or two after that. They are best in the kitchen when younger, the pores still whitish, although I don’t hesitate to eat mature ones. The King Bolete is abundant across the world, and their quick emergence and spoiling encourages us to pick them. After picking terrestrial fungi, it’s good to cover the hole you’ve made. There is concentrated mycelium all around that spot and we can keep its micro climate intact by covering it with forest duff.

Black trumpets (Craterellus cornucopioides) and winter chanterelles (Craterellus tubaeformis) occur together in tanoak-Douglas fir forests. I harvest these with scissors. I snip off a clump, leaving the soil and the small emerging mushrooms undisturbed, and they go nice and clean into the basket. Oyster (Pleurotus spp) mushrooms and honey mushrooms (Armillaria mellea) grow on logs and snags, especially alder. When harvesting these, try to remove the bigger, better ones while leaving the just-emerging ones to grow.

The impacts of picking these mushrooms is hard to study, but there is no evidence yet that they are harmed by this process. The mushroom is the fruit of a large underground organism that will go on living for a long time. There will be mushrooms we miss that will continue to sporre, and vast amounts of land behind the gates that do not get significantly harvested. Some of the well known spots in Humboldt have many people every year picking, and have been productive for decades. But remember, some mushroom species are rare, slow growing, and over-harvestable. Know the ecology of what you pick. Responsible foraging is about caring for and understanding the non-human people we meet in the forest.
Food Has the Power to Heal the Community and the Planet

Tamara McFarland, Cooperation Humboldt

Food has the potential to nurture, heal, connect and empower us - not only at the individual level but also as a community and as a species. At a time when eco-grief, climate anxiety, and racialized violence weigh heavily on our hearts and in our bodies, food offers an opportunity for repair and regeneration.

At Cooperation Humboldt, our conviction that nutritious and culturally appropriate food is a fundamental human right informs every aspect of our work. We understand that food access sets a necessary foundation for all aspects of personal and communal wellness. As we pursue our tangible work of planting fruit trees and gardens and installing Little Free Pantries, not only are we feeding folks’ physical bodies - we’re also helping them to connect more deeply with their neighbors, and to re-establish a relationship with the natural world rooted in balance and reciprocity. We’re also constantly working to leverage our projects to promote racial justice.

We must begin with the acknowledgement that resources we currently enjoy as a nation have been built on the genocide of Native people and the enslavement of Black people, and that the negative impacts of this history continue to this day in many damaging forms:

- Disproportionate access to capital and land for people of color;
- Disproportionate access to healthy grocery options for people of color;
- Less access to insurance coverage for people of color;
- Higher rates of preventable disease and premature death for people of color;
- D-valuing of farm labor traditionally performed by people of color.

In stark contrast to this history, we also have the power to create something completely different. Our food systems hold great potential to combat environmental racism and create a more equitable future. We can create systems that honor Indigenous rights and work to repair the harm that has been done to black and brown bodies for centuries in the United States. Exactly what this looks like will vary depending on context, but we have many examples already available to highlight in our own community.

- Our temperate climate and emerging local food ecosystem provides many opportunities to choose local over corporate food sources, which is one of the most powerful tools we have in the movement for climate justice;
- Indigenous leaders including Meagen Baldy of the Hupa Tribe and Two Feathers Native American Family Services are working to restore traditional foodways to tribal communities in the region.
- Traditional Yurok fishermen Sam and Peter Gensaw are combating food insecurity on the Lower Klamath Reservation by providing fresh vegetables for families and elders and fighting for dam removals to ensure that future generations have the ability to harvest salmon.
- Humboldt State University recently received a $250,000 USDA grant to establish La Comida Nos Une (“Food Unites Us”), a program that examines the scientific, political, socioeconomic, and social justice aspects of sustainable food systems.
- These are just a few examples of some of the exciting work being done for social justice and re-localization of our food system here in Humboldt County.

Cooperation Humboldt has recently agreed to take over production of the Local Food Guide from Locally Delicious. We’re calling it the Community Food Guide (CFG), and we’re working to reimagine how this annual print publication can best be leveraged to actively promote access, equity, education, and empowerment in our local food system.

Our priorities for the CFG include the following:

- Presenting useful and empowering information about growing and consuming locally produced food in a format that is fun and easy to understand
- Proactively soliciting input from under-served and under-resourced populations and working to make the CFG more useful to them;
- Centering the cultural knowledge, lived experiences, and wisdom of the original inhabitants of this land with respect to our relationship with food and the natural world;
- Using the CFG to specifically support BIPOC-, Women-, and Queer-owned food businesses;
- Leveraging the CFG to strengthen and grow our local food system and promote food sovereignty, localization, and non-corporatization of our food supply.

We’re excited to take on this work, grateful to Locally Delicious for paving the way, and inspired by the input we’ve received so far from our community. We can’t wait to share the latest edition of the Community Food Guide with you all next Spring.

To learn more about Cooperation Humboldt’s work, please visit www.cooperationhumboldt.com.
Kin to the Earth: Carol Vander Meer

Mike Cipra,
Friends of the Dunes Executive Director

Carol Vander Meer is many things: environmental educator, collaborator, organizer, fundraiser, facilitator, campaigner, trainer of naturalists, trails advocate, and land conservation visionary. Her ability to move between these different roles, and her passion for investing herself fully in conservation projects for the benefit of the land and our community, are what makes Carol Vander Meer Kin to the Earth.

Carol was born and raised in Nebraska, and her first conservation job was there — as a naturalist at Fontenelle Forest Nature Center where she learned to lead hikes, train volunteers, and run a nature center.

“I understand a nature center as a welcoming place,” says Carol. “It can be an important gateway for those who haven’t had access to nature before.”

Carol’s early experience working in a nature center — and the open, rolling Sand Hills of her childhood — would have echoes years later in Humboldt County. After a variety of environmental education experiences in the Midwest, Carol packed up her things and headed to Humboldt County in 1994.

Upon arrival in Humboldt, Carol worked for a few years as an interpretive park ranger at Redwood National Park, leading tours through the ancient forests and across coastal prairies. During this time, she took a docent training led by John St. Marie, a volunteer with a grassroots community group called Friends of the Dunes.

Carol jumped in with Friends of the Dunes immediately. At her very first Friends meeting — this was before the organization was incorporated as a nonprofit — John St. Marie asked if anyone was willing to step forward to be the group’s Volunteer Director.

Carol raised her hand immediately.

“I had no idea what I was getting myself into,” she laughs.

The dunes were going through changes. The Nature Conservancy, which had previously acquired and managed the Lanphere Dunes as the first coastal dune preserve in the Humboldt Bay region, was conveying their property to the US Fish and Wildlife Service and leaving the area. Many people who had worked to protect and restore Lanphere were concerned about the future. Carol jumped into the breach, leading the effort — along with John St. Marie, Jeannine Kapielian, Linda Lee, and Bev Prosser — to establish Friends of the Dunes as an official nonprofit organization that could provide support and conservation leadership.

In 1996, Friends of the Dunes incorporated as a nonprofit. Within the first year, Carol worked with Shayne Green and Jennifer Bloesser to establish and fund the Bay to Dunes outdoor environmental education program. Bay to Dunes continues to this day, and has educated more than 15,000 students — a generation of Humboldt County kids growing up learning about coastal ecology in the outdoor classrooms of Humboldt Bay.

Carol quickly recognized the importance of Friends of the Dunes having its own land base for the organization’s growing education and volunteer habitat restoration programs. Friends of the Dunes made an initial attempt to acquire dune habitat, engaging the Coastal Conservancy and a private landowner in conversations about the Poovey Tract, which includes an ecologically significant coastal dune forest located directly south of the Manila Dunes Recreation Area. The parties had an agreement, until real estate developer Security National swooped in at the 11th hour to outbid Friends of the Dunes.

Disappointed but undaunted, Carol began a conversation with the Stamps Family about their dune property in Manila. Eventually Carol, assisted by Rondall Snodgrass, Su Corbaley, Bill Weaver, and others, negotiated for the purchase of the Stamps House and the dune habitat which lay to the west. Carol saw in the Stamps House a vision of a nature center as a gateway to the coastal dunes, and she worked tirelessly and collaboratively to clean up the property (“Volunteers hauled thousands of tires and tons of trash off that land,” she recalls) and to transform the Stamps House into the Humboldt Coastal Nature Center.

Around this time, Carol and the Friends of the Dunes Board also saw emerging opportunities for buying adjacent land and adding it to the conserved dune habitat of the Humboldt Coastal Nature Center. Carol worked with private landowners, the Coastal Conservancy, and the Wildlife Conservation Board to steadily acquire land until Friends of the Dunes was able to connect the habitats of the Manila Dunes Recreation Area in the south with the Ma-le’l Dunes and Lanphere Dunes in the north.

“I began thinking of this as one entire connected landscape, and realizing that we had an incredible opportunity,” she says.

That opportunity continues to be realized today. Carol stepped out of her role as Executive Director of Friends of the Dunes in 2014. She rejoined the Friends of the Dunes Board of Directors in 2019, and today serves as the organization’s Board President.

On October 15, 2020, Friends of the Dunes took ownership of the 357-acre Samoa Dunes and Wetlands Conservation Area, which includes the ecologically important land that was long ago bought out from under Friends of the Dunes by Security National. These dunes are now permanently conserved, and form a crucial part of a network of 1,600 contiguous acres that are managed for appropriate public access and habitat conservation.

Carol is quick to give credit to all of the partners and collaborators who have made these conservation gains possible, and she’s right — it does take everyone working together across years of effort to achieve a conservation legacy this significant. It’s also correct to say that Carol Vander Meer has been a visionary and a leader in growing this long-term project to protect our unique coastal habitats, to engage the community in conservation, and to inspire the next generation of conservation leaders. And for that, Carol is Kin to the Earth.
US SENATE

As of this date, the Senate is evenly split, 48 Republicans and 48 Democrats with two Senate seats representing Georgia that will not be decided until mid-January. The results of those two hard-fought elections will determine the majority in the Senate and whether Leader McConnell (KY-R) will retain the Senate Leadership or if it will pass to a Democratic leader such as Chuck Schumer (NY-D.) Mark Kelly, former astronaut and husband of former US Rep. Gabby Gifford (who was critically wounded by a gunman) is not only expected to be a leader on gun safety, but also a leader supportive of climate crisis legislation. Colorado voters replaced incumbent Cory Gardner (R-CO) with pro-environment, former Democratic Governor, John Hickenlooper.

REPLACEMENT OF SENATOR HARRIS

When Senator Kamala Harris assumes her duties as the Vice President, her Senate seat will be replaced through appointment by Governor Gavin Newsom (D.) A rumored list for her replacement includes: Reps. Barbara Lee of Oakland, Katie Porter of Irvine and Karen Bass of Los Angeles, current CA Secretary of State Alex Padilla, a longtime political ally of the governor and Mayor of Long Beach, Robert Garcia. Pundits have suggested the governor will likely replace Harris with another qualified minority figure.

US HOUSE OF REPRESENTATIVES

Congressman Huffman was re-elected with wide support and will continue to be a strong voice for the environment. He will presumably also retain his chairmanship of the House Natural Resources (NR) subcommittee on Water, Oceans and Wildlife, as will Rep. Raul Grijalva (D-AZ), current Chair of the House NR Committee. A primary change in the House NR Committee is the retirement of former chair of the committee, Rob Bishop (R-UT) who was a consistent, vocal opponent of many important policies for public land protection. It is presumed that Rep-Elect Moore, who replaces Bishop, will retain a seat on the House NR Committee. Rep. Haaland (D-NM), a member of an Indigenous tribe, retained her seat and will continue to provide a strong voice for environmental justice although there is some talk of her becoming part of the new Biden Administration. In that case, that seat would be appointed by the current Democratic governor of New Mexico. The 21st CA Congressional District is still a tossup although former US Rep. David Valadao has just over 4,000 more votes than incumbent, TJ Cox (D-CA). This race is important to north coast residents because Valadao has been aggressive with legislation to move water from northern California to his Central Valley District. Some influential US House voices for and against conservation legislation who have retained their seats include LaMalfa (R-CA,) McClintock (R-CA,) Levin (D-CA,) Lamborn (R-CO) and Cheney (R-WY.)

LOOKING BACK ON 2020

“Mixed Bag” would be putting a wig on a watermelon. The Trump Administration tried to hand off the nation’s natural resources to exploiters while conservationists stopped or slowed those efforts with lawsuits. Congress was mostly mired in mud. Perhaps the crowning insult was the last-minute removal of the endangered Grey Wolf from protection nationwide. Certainly, the biggest success for the environment in 2020 was passage of the Great American Outdoors Act which permanently funded the Land and Water Conservation Fund (LWCF) and attempted to address the long-bemoaned “backlog” of infrastructure neglect in National Park sites. Even this win was mired in the partisan mud with states on the Gulf Coast, where a majority of the funds are derived, lobbying unsuccessfully for a larger portion of the funds, pointing out they are also the most at risk for disasters like the Deepwater Horizon oil spill. Fortunately, that effort failed as did the effort to disallow the use of the LWCF for purchasing new lands for National Parks and Wildlife Refuges.

WILL DEMOCRATS LET BIDEN BE THE MODERATE HE PROMISED TO BE?

Governing in a divided nation requires compromise to pass critical legislation. Public health, the economy, the environment and confirmation of every nominee President-elect Biden proposes will require passage through the expected Mitch McConnel / Republican Senate majority. President Trump’s answer to gridlock was avoidance of public critique of his nominees through bypassing the traditional confirmation process, using a series of deputies and acting agency heads. What sort of Sec. of the Interior will Biden be able to successfully maneuver through a Republican Senate confirmation process? Luckily both Biden and Harris know exactly how the Senate works. They also realize clear communication, careful listening and presenting nominees that represent the President’s policies while not riding roughshod over Republican concerns will all be required. Will the Progressive wing of the Democratic Party support such governing? Will the grassroots of the Democratic Party be able to shake the divisions of the past to keep an eye on the big global picture of environmental protections? Or will the party and the conservation community become mired in an internal quagmire that cripples progress? In the words of Speaker Pelosi, will they be able to celebrate winning the war though they lose some battles?
**Evening Programs**

**December 9, Wednesday, 7:00 p.m. via Zoom. Three fun native plant topics in one evening.** Madeleine Lopez, Humboldt State University graduate student, will tell about her experiment to see if fire encourages germination of seeds of the beautiful but super rare Lassics Lupine. Tony LaBanca will take us virtually to see spring in Zenia, on the Wildflower Show collecting route he has done for many years. Sydney Larson will show the intriguing, non-green, flowering plants (known as mycoheterotrophs, previously saprophytes) she found on the Hope Creek Trail in June. **Register** for this Zoom event at www.northcoastcnps.org.

**January 13, Wednesday, 7:00 p.m. via Zoom.** Evening program. Topic to be announced.

**Field trips**

**December 6, Sunday. Samoa Dunes and Wetlands Day Hike.** On the North Spit of Humboldt Bay, this newest addition to conservation lands offers hikers the full array of dune habitats—dune mat, dune hollows, dune forest, willow wetlands. We will see them all, walking about 3 miles, all on sand. Bring lunch and water; dress for the weather. Our Covid protocol insists on small groups, face coverings, and social distancing. Please register with Carol at 707-822-2015 or theralphs@humboldt1.com to learn details.

**January 16, Saturday. Destination to be announced.**

**One Way to Save Native Plants**

by Carol Ralph

Reading reports is not a fun way to save native plants, but it can have a big impact. This image from an “initial study”, a lengthy public document submitted to the county planning department, by an applicant to grow cannabis on a remote mountain property shows the location of 3 of the 16 proposed greenhouses, which are scattered among 5 small coastal prairies on the forested mountains. This prairie includes a “sensitive natural community” (S3), small enough it does not require avoidance. Though distressing to me, this situation is permitted by land use regulations. Nearby in the report I learned that the botanical surveys were not done at seasons when some important plants would be visible, and the method used to calculate the cannabis percent of prime ag land was suspect. These are faults I can call to the attention of the planning commission as part of the public comment required by the California Environmental Quality Act (CEQA). Reading just part of the report, I can find the information relevant to native plants and write a letter pointing out deficiencies. I am still learning how to do this. If you could too, get in touch! There are lots of applications!

**Native Plants for Sale**

Our native plants are available every day, 12-6 p.m., at the Kneeland Glen Farm Stand at Freshwater Farms Reserve, 5851 Myrtle Ave. If you don't see what you want, contact us at northcoastcnps@gmail.com.

**Stay Updated:**

www.northcoastcnps.org

facebook.com/NorthCoastCNPS

CNPS welcomes anyone interested in native plants to join our events. No expertise required.

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**ZERO WASTE & COVID-19**

**Staying Safe Doesn’t Require Single Use Plastics**

Unless you are a healthcare worker, concentrate on what you can do to reduce waste in your daily life. The U.S. Food & Drug Administration emphasizes ten top actions to protect yourself, grocery store workers, and other shoppers. (fda.gov/food/food-safety-during-emergencies/shopping-food-during-covid-19-pandemic-information-consumers). These actions include wiping down the grocery cart handle with disinfectant wipes, maintaining 6 feet or more between yourself and others, putting your mask on before you enter, and washing your hands before and after shopping. The FDA clearly states: “Again, there is no evidence of food packaging being associated with the transmission of COVID-19. However, if you wish, you can wipe down product packaging and allow it to air dry, as an extra precaution.”

This list does not include using more single use plastic bags and wrapping everything you buy in extra plastics.

The petrochemical industry has taken advantage of the public’s fears about the pandemic to promote single use plastics. There is no evidence that plastics are cleaner or safer. Research in Wuhan, China hospitals earlier this year on air and surfaces such as floors, plastic trash cans, metal sickbed handrails, cloth PPE, and air outlets indicated that floors, probably from gravity, were among the highest rate of positivity for COVID-19. In another study comparing the length of time COVID-19 remains on several surfaces, including cloth, wood, metal, paper, and plastic, plastic was the surface where COVID-19 seemed to linger the longest. Research will continue on how COVID-19 is transmitted and the steps we can take to slow the spread.

**Plan Ahead and Get Organized to Reduce Waste**

When you order from a local restaurant, tell them that you can’t accept it wrapped in plastics. Tell them you are bringing the meal home and do not need extra plastic utensils, straws, napkins, etc. thrown in the order. Most Humboldt County restaurants have not adopted backward practices of serving in disposable plastics. Brown paper bags, brown cartons and boxes for the meal work just as well and do not damage the environment nearly as long nor as badly as plastics. Voice your preference; they want your business.

During this time, rethink your kitchen space to reduce waste. Glass jars with tight lids keep foods fresh longer and keep ants out better than single use cardboard, paper, and plastic packaging. Regularly wash your reusable shopping bags. Do your own kitchen science to test accuracy of “sell before,” and “best by” food labels. Organize your cupboards and fridge by the foods’ age to reduce food waste. Zero Waste Humboldt is always looking for good examples of reuse, wash and refill, and return-to-the-store containers. Contact zerowastehumboldt@gmail.com to share your ideas.
Get on Board for the Climate:
Composting Mill Waste Wins Blue Ribbon for the Climate

Martha Walden & Wendy Ring, 11th Hour

Each year, Environmental Science and Management students at Humboldt State University tackle a local environmental challenge. Last spring semester they were enlisted by Redwood Coast Energy Authority (RCEA) to investigate better uses for the mountains of sawdust and wood chips at Humboldt Redwood’s lumber mill. Currently this waste stream is incinerated at the biomass plant next door where it generates nearly a quarter of our electricity. Burning wood pollutes the air and emits as much carbon as coal. The resulting power is more expensive than clean energy, such as wind and solar.

Two teams chose gasification, burning the wood waste with restricted oxygen to produce syn-gas, and then burning that for electricity. This would reduce air pollution by 90% and cut carbon emissions by up to 27%, but the cost of building gasification plants is high ($100 million to $270 million).

Two teams chose conversion to wood pellets. One pro-pellet team proposed torrefaction -- heating waste at low temperatures with no oxygen to produce a clean-burning, low carbon fuel at a cost of $54 million. However, it would need to be co-fired with coal. The other team wanted to make the type of pellet burned in pellet stoves. Although making them would indeed emit less carbon, actually burning them would double the emissions of the Scotia plant.

The emissions of burning the pellets were simply not counted. That was not an oversight. California has designated burning biomass as carbon neutral -- despite its carbon-intensity -- because trees are renewable, unlike fossil fuels. This argument strikes many climate activists as well past its prime, considering the rapid and urgent decarbonizing we must accomplish.

The two remaining teams chose composting the mill waste. Based on expense -- $3 to $5 million -- and sheer amount of reduced emissions, this was the winning solution. Although composting does emit some carbon, the net emissions are estimated to be 200% less than those of incineration because of how much is sequestered in the soil along with the carbon subsequently absorbed by enhanced photosynthesis of future growth. Lifecycle analyses conducted by UC Berkeley, HSU and California Air Resource Board all agree that composting is net carbon negative.

Large scale compost application on Humboldt County’s working lands has great potential to sequester carbon. It also creates income for farmers and ranchers. The state of California provides financial incentives for applying it to farm and ranch lands, and markets for agricultural carbon credits are taking off. Humboldt Waste Management Authority pays a million dollars a year to haul compostable waste to a landfill in Oregon. Much of this is the kind of nitrogen-rich waste needed to compost mill waste. If we compost here, that money -- and the resource -- stays local.

Cow manure is another waste product / potential resource that currently does nothing but emit methane. It too could aid in composting mill waste. Granted, it’s much more convenient to not disturb it, ship compostable waste to Oregon, and burn mill waste at the 32 year-old, inefficient biomass plant. By paying more than competitive rates for biomass electricity, RCEA ratepayers incentivize Humboldt Redwood Company to keep things the way they are for as long as possible.

Composting our waste would achieve a major reduction of emissions here in Humboldt county. It’s a goal we all believe in.
Trump Administration Makes Moves to Raise Shasta Dam, Expand Reservoir

The outgoing administration announced plans November 19 to expand the Shasta Dam, one of the more controversial water projects in Northern California. The dam impounds one of the largest reservoirs in the state, water which is then transported to farmers in the Central Valley. In addition to being opposed by tribes and conservation groups, the move is also opposed by the State of California, which has sued to block the plan at various stages.

The plan is an effort to fulfill Trump’s promise to deliver water to the Westlands Water District, the largest irrigation water provider in the country. Secretary of the Interior, David Bernhardt, was formerly a lobbyist for Westlands Water District, which covers more than 1,260 tons of added annual releases of toxics like benzene, a carcinogen, but as of February, only 69 companies (roughly 3% of those eligible) had made the switch to the laxer option.

Sacramento City Council to Consider Banning Leaf Blowers on Bad Air Days

According to a report by City staff, “The use of leaf blowers creates several types of emissions, including engine exhaust, refueling emissions and fugitive dust emissions. The most significant health impact created by portable blowers comes from the fugitive dust emissions and noise created during operations.” Vice Mayor Jeff Harris requested that the City consider amending the city code to prohibit the use of all blowers whether electric or gas powered when the AQI is at or above 100, which happens an average of 34.5 days per year.

Swedish Grocery Store Prices Food Based on Climate Impact

In Sweden an innovative grocery store recently opened called “The Climate Store,” where food items are priced based on their carbon footprint. The currency at the grocery store is carbon dioxide equivalents and customers have a weekly carbon dioxide budget. This unique pricing structure highlights the true impact of food production on the climate and helps distinguish between low impact (plant-based foods) and high impact foods (animal products).

“IT will be exciting to see how customers react to trading with the CO2e currency and see if they manage to stay within their weekly budget,” Felix Marketing Manager Thomas Sjöberg said. “I think it will be an eye opener for many to see how certain choices affect what [they] can afford to get in the same lunch bag.” Source: VegNews.com

Pandemic puts U.S. on Track to Meet Greenhouse Goals

Despite pulling out of the Paris Climate agreement (which President-elect Biden says he will rejoin on day one of his administration), the U.S. is on track to meet the GHG reduction goals put in place by that agreement due to the pandemic. A new report by BloombergNEF shows that U.S. greenhouse gas emissions will be 9% lower by the end of this year than they were last year, mostly because of an economic downturn related to the novel coronavirus. The drop is the largest in U.S. history, returning U.S. greenhouse gas output to roughly what it was in 1983.

After a year of economic lockdown linked to COVID-19, the country is now emitting about 20% less than it did in 2005 — setting it up to outperform the lower end of the Paris commitment if emissions were to remain on the same trajectory through 2025. An economic recovery is expected, so it is up to the new administration to implement policies that keep us on this trajectory.

EPA Scraps Toxics Rule, But Industry Doesn’t React

The Trump administration finally succeeded in unraveling a Clinton-era rule on toxic emissions, but very few companies seem to be taking advantage of the relaxed regulations. In an official analysis EPA acknowledged that the repeal could lead to as much as 1,260 tons of added annual releases of toxics like benzene, a carcinogen, but as of February, only 69 companies (roughly 3% of those eligible) had made the switch to the laxer option.

Eric Schaeffer, Executive Director of Environmental Integrity Project, a watchdog group following the switch to the laxer option.
WILDLIFE CROSSWORD

Created using the Crossword Maker on TheTeachersCorner.net

DOWN
1. A relationship between two species of organisms in which both benefit from the association.
2. Species that eats only meat.
4. A relationship between two organisms where one receives benefit and the other is not affected.
5. A plant or animal that plays a unique and crucial role in an ecosystem.
6. A hoofed mammal such as deer, elk, moose, and cow.
7. Native or restricted to a certain country or area.
9. Species that eats both plants and meat.
12. Active during the day.

ACROSS
2. Food storing behavior.
3. Active at dawn and dusk.
8. Species that eats only plants.
10. A predator residing at the top of the food chain, such as the wolf.
11. Active at night.
13. Adapted to digging, like moles.

STUMPED? VISIT YOURNEC.ORG/DECCROSSWORD

Foraging At Its Finest

BY JOEL MIELKE CARSON PARK DESIGN

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