SANCTUARY FOR SALMON

SALMON STRONGHOLDS IN LOCAL WILD RIVERS PROVIDE IMPORTANT PROTECTIONS
Climate Crisis
Since the last issue of EcoNews was published, the climate crisis has become more real to many members of the public who normally remain oblivious about anything outside of their social circle. The economic impacts of the climate crisis have been brought into sharp focus by the PG&E power shutdowns across the state. The unnecessary shutdowns in Humboldt County, resulting from our connection to the bigger power grid in other affected areas, caused businesses to lose hundreds of thousands of dollars (in just one of the shutdowns), not to mention all of the money lost by individuals through lost wages, spoiled food, and being forced to pay top dollar for emergency supplies, if they could even be found. Doctors’ offices were closed, resulting in expensive Emergency Room visits. And in some extreme cases, deaths were reported, a consequence of unpowered or malfunctioning medical devices.

General Plan Lawsuit
The notorious pro-development and so-called property rights group HumCPR has sued the County of Humboldt over its General Plan CEQA (California Environmental Quality Act) document. They accuse the County of several technical violations of CEQA and are asking that the document be vacated, set aside, and all activities under the CEQA document be suspended. This is a very peculiar situation because HumCPR’s former director, Estelle Fennel, is a Supervisor. Rex Bohn, an ardent HumCPR supporter, is also on the Board, along with Virginia Bass, who has always voted with them. So it seems strange to us that HumCPR would be suing what appears to be their friends and supporters. The situation begs the question, what’s really going on here?

Fish Farm
As the hype about the Nordic Fish Farm Project seems to be gathering momentum, there are more questions about the potential environmental impacts of this unusual and fairly untested way of fish farming at this scale. The proponents would better serve the community and themselves by answering all of the pertinent environmental questions ahead of time instead of trying to build public support before a clear picture emerges.

Terra-Gen
The controversy around this project continues to grow. Despite attempts by Terra-Gen and some in the media to promote division in the environmental community, few have taken the bait. Most see this as a flawed project with a lofty goal. One of the main problems with the Terra-Gen Wind Farm is rather than providing an extensive opportunity to engage with the public, the project is seemingly being rushed through the process in order to maximize profit potential. Many serious questions and issues were raised in comments submitted by the NEC and EPIC, as well as many others. Terra-Gen’s response to these and other substantial issues raised during the input period has been wholly inadequate. The final document relies on false assumptions, missing data and even bad math in order to achieve their desired goal of quick approval. Be sure to voice your opinion at the appeal hearing in front of the Board of Supervisors on December 16, 9 a.m. at the Adorni Center in Eureka.

Eureka’s Broadway Corridor Plan
We attended a public meeting in November about the City of Eureka taking another look at its Broadway Corridor. The Broadway Corridor has always been a problem for the City of Eureka, but the situation was made much worse when the City decided to allow unchecked development all along the corridor with no
News from the Center
Continued from prior page

This was something that the NEC had warned the City about back in the 1980s. Now the City is bringing out many of the old plans and studies that were done in the past, apparently hoping to receive grant money to look at one or more of the old, discarded plans again. Included in this toxic mix of old plans is the zombie-like Waterfront Drive extension that the NEC and many other groups have killed several times through the years.

Winter Vacation Raffle
Win a vacation—enter our Winter Vacation Raffle! Prizes include two night stays at Requa Inn, Humboldt Bay Social Club, Blue Lake Casino, plus other great prizes. Check the back page of this issue for more information and how to purchase $10 tickets. Raffle winners will be announced at our January 23 Open House.

Best of Luck Tiffany!
We would like to publically give our heartfelt thanks to our dedicated Work Study student Tiffany Perez, for all her enthusiasm, creativity, dedication to detail and streamlining of our membership program during the past two years. Tiffany will be graduating from HSU this December and looking for opportunities to utilize her skills in other conservation efforts.

Wine Pour
We’ll be pouring wine at Garden Gate December 13 so stop by to say hi and purchase raffle tickets! Many thanks to Garden Gate for their continued support.

Open House - January 23
Be sure to stop by the NEC office from 5-7 p.m. on Thursday, January 23, for some light appetizers, drinks, and comradery. We’ll talk about our 2020 tasks and upcoming projects.

Volunteer Spotlight

Rob DiPerna
How long have you been volunteering with NEC? I believe I’ve been volunteering with NEC for about a year, mostly helping with the production of EcoNews.

What inspired you to volunteer? I was inspired to volunteer at NEC because I have a skill and saw a need; I believe strongly in the doing of good deeds, and in filling gaps and holes where I can simply because it is a good and right thing to do.

Words for future volunteers? For future volunteers, I would say that the greatest rewards come from giving and doing, simply for the sake of giving and doing and not expecting anything in return. Our society has lost its lust for service and philanthropy in favor of a society based on being served, self-advancement, and entitled consumption. If we are ever going to turn things around, we must get back to prioritizing the greater good over our individual agendas and gains.

Letters to the Editor
Letters should be 300 words or less, be relevant to EcoNews readers and material covered in EcoNews, and must include the writer’s address and phone number. Letters may be edited and shortened for space. The NEC reserves the right to reject any submitted material for any reason (size, content, writing style, etc.).

Send to editor@yournec.org
2019 Year in Review

Bella Waters and Dan Sealy

This Year’s Accomplishments

2019 was another successful and challenging year at the NEC! The following list features some of the many issues and events we worked on or were involved with.

- Congressman Jared Huffman and Senator Kamala Harris reintroduced the Northwest California Wilderness, Recreation, and Working Forest Act in Congress, which members of the NEC have been working on for over six years.
- Mercer-Fraser removed its application for an asphalt batch plant near the Humboldt/Trinity county line and near the community of Dinsmore, along the Van Duzen River. The NEC opposed this application.
- The NEC joined the Advisory Committee for the CROP (Cannabis Removal on Public Lands) Project which is focused on bringing awareness of trespass grows on public lands.
- After the drastic changes at KHSU, the EcoNews Report was resurrected with a new talk show format on KHUM, broadcasting every Saturday at 10 a.m.
- Completed the Fifth Annual Tim McKay Birdathon, sharing proceeds with Redwood Region Audubon Society.
- Held four successful beach cleanups, including the revamped Zero Waste Coastal Cleanup Day. These events removed over two tons of trash from our beautiful beaches.
- Welcomed a great batch of enthusiastic interns who help in all aspects of the NEC: Ryan Call (EcoNews Archive), Jackson Carrasco (Zero Waste), Blake Fulgham (Coastal Cleanup), Jacqueline Holmes (Zero Waste), Kaylin Jebaili (EcoNews Archive), Reanne Lopez (Special Projects), Ivy Munnerlyn (Coastal Programs), Grace Oliva (Special Projects), Collin Slavey (EcoNews), Marina Storey (Coastal Cleanup), Haley Walker (Environmental Education), and Terrika Zimmerman (Legislative Analyst).
- Held three exciting community building fundraisers to help strengthen the NEC’s financial base for continuing our important programs and educational outreach.
- Collaborated with Friends of the Dunes to bring the Climate Action Roadshow to Humboldt and with Surfrider Humboldt to bring Hands Across the Sands—a global, silent solidarity event to say no to fossil fuels and yes to renewable energy—to Moonstone Beach.
- Presented environmental education at numerous events, including Godwit Days, Party for the Planet, Redwood Environmental Education Fair, Take A Child Outside Day, and Zero Waste Day.
- Published another six environmentally focused, informative, eye-catching issues of EcoNews for our members and the Northern California and Southern Oregon communities.
- With our Adopt-a-Block participants, removed 14,454 cigarette butts from the streets of Arcata and Eureka, preventing their contamination of Humboldt Bay.
- Finalized the California State Regional Water Board’s Site Cleanup Subaccount Program (SCAP) that will result in the NEC’s 9th Street property being fully remediated.
- Partnered with Arts & Drafts in Eureka to bring five free upcycling workshops to the community, along with education on the importance of reducing and reusing materials.
- Banded together with Richard’s Goat and the MiniPlex to present ANTHROPOCENE during Climate Week, and six additional showings the following week.
- Hosted a presentation of the North Coast Otters Public Arts Initiative, a citizen science project about local otter populations and sponsored a public art otter for the project, which will launch in 2020.
- Became the facilitator for the Zero Waste Lending Library, allowing nonprofits and local government agencies to borrow tablecloths and linen for free, helping to reduce event waste.
- Was selected as one of the North Coast Co-op’s Seeds of Change participants. Watch for us at the Co-op in April & be sure to round up your total at the register to support our vital coastal programs.

Supported these state bills:
- SB 54 Single-Use Packaging and Products and AB 1080 The California Circular Economy and Plastic Pollution Reduction Act. These bills would ensure California is on the forefront of reducing pollution from plastic packaging and products. They would set goals to reduce waste from single-use products and packaging and ensure the remaining items are effectively recycled and establish a comprehensive framework to address the pollution and waste crisis.

Top, above: NEC staff, volunteers, and guests enjoyed the photo booth at our annual Spaghetti Dinner Fun(d)Raiser in the Spring. Above: The annual All Species Parade, led by the NEC, takes place during the North Country Fair each September. Above, right: NEC staff and interns tabling at Mad River Brewery for a Pints for Non-Profits event. Right, below: (clockwise from upper left) EcoNews Report hosts Jennifer Kalt, Larry Glass, Tom Wheeler, and Scott Greacen with recording engineer Fred McLaughlin.
Other Important Highlights

- Submitted letter of support for the Karuk Tribe’s petition to the California Fish & Game Commission to protect Klamath-Trinity spring-run Chinook salmon under the California Endangered Species Act.
- Commented on the Board of Forestry and Fire Protection’s California Vegetation Treatment Environmental Impact Report, supporting all treatment activities with the exception of chemical herbicides for purposes of fuel reductions.
- Commented on the proposed rule to list the Pacific fisher in Washington, Oregon and California as a threatened species under the Endangered Species Act.
- Affirmed our support for the Great Redwood Trail and dissolving the North Coast Railroad Authority.
- Submitted public comments to FERC strongly opposing the Jordan Cove Liquefied Natural Gas (LNG) and Pacific Connector Pipeline project.
- Submitted public comments to the U.S. Fish and Wildlife Services supporting the proposed rule to establish an experimental population of the California condor in the Pacific Northwest.
- In partnership with EPIC, submitted comments to Humboldt County Director regarding the Draft Environmental Impact Report for the Humboldt Wind Energy Project.
- Submitted comments to the California Transportation Commission opposing the allocation of $775,000 for the STIP US 101/Trinidad Area Access Improvements Projects (PPNO 2515) in Humboldt County.
- Submitted comments to the California Coastal Commission encouraging the Commission to consider the Commission’s own concerns regarding the Trinidad Rancheria’s Hotel Project, as well as public comments, and deny the proposal for the Trinidad Rancheria’s Hotel.
- Signed on to comments to the US EPA expressing our strong and unified opposition to the proposed revised methods for national level Endangered Species Act (ESA) assessment process for biological evaluations of pesticides.
- Urged our Representatives to vote YES for H.R. 1146 and support the Arctic National Wildlife Refuge.
- In collaboration with EPIC, CNPS, RRAS, 350 Humboldt, and Redwood Chapter of the Sierra Club, submitted a coalition letter regarding the proposed Terra-Gen wind project to Humboldt County Planning Director.
- Submitted a letter to the U.S. Forest Service supporting its Tangle Blue Trail realignment project, which will move popular trail activity away from sensitive habitat.

All of these accomplishments and projects wouldn’t be possible without your support, so thank you! Please consider donating, renewing your membership, or gifting an NEC membership in the coming year to help us continue our important work!
**Salmon Stronghold**

Refuge, Safe Harbor, Sanctuary

*Dan Sealy*

As salmon populations dwindle perilously due to habitat destruction, changing ocean conditions, climate change, and overfishing of some species, it is somewhat miraculous that there are still rivers that provide sanctuary for wild salmon populations. Many of the rivers in northern California and southern Oregon have been dammed and diverted for water and energy. They have also been deforested—raising the water temperatures and choking streams and rivers with large amounts of sediment and debris. It is encouraging to discover wild rivers and streams where deep pools harbor beautiful concentrations of wild salmon that embody native genetic diversity and adaptability.

The Smith River flows from south-central Oregon through Del Norte County, California, to the Pacific Coast north of Crescent City. The Smith River Alliance (SRA) has been “Protecting land and water, restoring habitat, and stewarding the Smith River,” for over three decades. The Smith River harbors many species of native fish including coho and Chinook salmon, steelhead trout along with California’s most robust population of cutthroat trout. The deep, emerald blue-green pools of the Smith River are famous for their beauty as well as their importance in providing a refuge for fish. Grant Werschkull, Executive Director of the SRA, says “We consider the salmon a barometer or totem of the success of restoration work.”

California’s 2nd Congressional District representative, Jared Huffman, knows first-hand the beauty of these wild creatures. He and his family spend time on these rivers. Huffman also appreciates the deep connections between the people of the Pacific Northwest and these ancient fish. Native American tribes of the Pacific Northwest are tied economically and spiritually to these fish and the lands and waters that provide salmon sanctuary. In recognition of the beauty and importance of salmon and these deep human connections, he introduced the Salmon Focused Investments in Sustainable Habitats, or FISH Act (HR 4723). The Act would direct federal agencies to identify important wild salmon spawning areas and engage in restoration activities in those river watersheds. The bill also directs agencies to include plans for restoration and protection for the identified federal lands and waters where these sanctuaries exist.

Congressman Huffman looked to the Smith River Alliance and the Wild Salmon Center in Arcata, California, to see the importance of these stronghold watersheds. “Under the Salmon FISH Act, watersheds across the West that support thriving salmon runs, like the Smith River in California’s second congressional district, will receive the support they need through new protections and funding to restore and maintain salmon abundance. Healthy salmon watersheds bring ecological and economic benefits, and they have deep importance to the tribes who have relied on salmon since time immemorial. My bill’s approach of protecting the thriving salmon rivers that still exist will increase the resiliency of salmon populations and keep good habitat intact. That will benefit everyone who depends on salmon for their income, culture, recreation, and more—including the tribes and fishermen along California’s north coast.”

Scott Greacen, of the Friends of the Eel River in Arcata, California, understands the value of this strategy. “Friends of the Eel River supports the FISH Act. This bill will support salmon and steelhead protection and recovery by identifying and helping to restore key salmon... Continued on page 19
CROP: Cannabis Removal on Public Lands Project

CROP AND MEDIA VISIT A TRESPASS GROW SITE NEAR SHASTA-TRINITY NATIONAL FOREST

Jackee Riccio

Empty pesticide containers, piles of trash, and thousands of feet of black poly-line—these describe a recently eradicated trespass grow in the nearby Shasta-Trinity National Forest. In September of this year, the Cannabis Removal on Public Lands Project (CROP) organized a visit to this site where various media outlets, including National Public Radio and The Atlantic Magazine, came to learn about trespass grows firsthand.

Led by the Forest Service and the Blue Lake based Integral Ecology Research Center (IERC), CROP and its guests traversed down a steep hillside off a Forest Service road and made their way into the first of the grow site's six plots. The first plot had a sleeping and food processing area and a cleared planting area with a couple hundred planting holes that each contained a handful of plants. The next plot contained a makeshift shelter, and a large planting area. Further down the ravine, they arrived at the largest plot—a large terraced area, with trees cut out of the way to let in more sun, and numerous lines of black poly-tubing meandering through the site. Collectively, these trespass grow sites divert an estimated nine billion gallons of water annually—the yearly water budget for Redding. Some of the lines at this grow were still operational, never removed from their source streams. While a typical site, the infrastructure and organization of the site was robust for such rugged terrain.

There are thousands of trespass grows like this throughout nearly all of California’s National Forests. While most trespass grows are in National Forests, other public lands including National Parks, BLM lands, and State Parks also contain trespass grows. While recreation in National Forests has increased over the past decade, budget cuts have reduced Forest Service presence in the forests and the ability to properly patrol them. For example, the Shasta-Trinity National Forest is 2.2 million acres, and yet only six Forest Service Law Enforcement officers patrol its entirety. Reclamation of the sites is only one aspect of removing them from our public lands. To avoid playing trespass grow whack-a-mole, it’s critical that there is regular USFS law enforcement presence to deter the activation of new sites, while reclamation teams clean-up the backlog of existing sites.

Many dangerous pesticides found at trespass grows are EPA-banned, such as carbofuran—a liter was found at this site—and sarin-based malathion. Referring to carbofuran, “A quarter of a teaspoon can kill a 600-lb black bear. So, only a tiny amount will kill a human,” says Dr. Greta Wengert, co-director of IERC. “It remains in an ecosystem for a long period of time.”

While only restricted in California, second-Continued on page 22
Bring Back our Beavers!

Tom Wheeler, Executive Director

In November, EPIC submitted a rulemaking petition to the California Fish and Game Commission to re-write the trapping rules for beavers, giving California’s beavers (and the countless species that benefit from their presence) more protections against thoughtless killing.

The North American beaver (Castor canadensis) is native to California. Accordingly, the flora and fauna of the state have co-evolved with the beaver, developing unique and complex interwoven relationships. Beavers, however, are currently missing from much of their historic range and the effects of their absence are felt by the species that co-evolved with beavers.

Beavers create freshwater habitats used by a variety of wildlife, including fish, birds, and other mammals. Their dams filter stream water, improve water quality, raise the water table, increase water storage, and repair eroded riparian areas. In short, beavers are nature’s engineers, forming good aquatic habitat for many species.

EPIC’s rulemaking petition does two primary things. First, it prohibits lethal removal of beavers or destroying beaver dams if that would result in the taking of a federally-protected species under the Endangered Species Act. This is not a change in the law—you are still prohibited under federal law from harming a listed species—but the rulemaking petition would codify this federal rule under state regs, making implementation and enforcement by state agencies more likely.

Secondly, the rule change would tighten regulations to prevent needless beaver deaths. In some regions of the state, beavers are regarded as a pest—they clog agricultural ditches, flood fields, and gnaw down trees. Currently, California’s lax regulations mean that these beavers are killed without much concern.

With a simple application, beavers can be “removed,” even when there are ways to remove the harm to humans but save the beavers. (Anti-clog devices can keep culverts clear, flow control devices can stop problem flooding, and wire-wraping trees can stop beaver damage.) Under the current rules, a landowner is under no obligation to try non-lethal methods of dealing with the problem.

The changes proposed are part of EPIC’s larger campaign aimed at changing the legal landscape to facilitate beaver restoration throughout the state. Earlier this year, EPIC successfully forced the federal wildlife-killing agency (misleadingly called “Wildlife Services”) to stop killing beavers that might impact endangered species. Now, we are tackling trapping permits.

In the future, EPIC will take on rules that make beaver relocation prohibitively costly. In our efforts, we are joined by a whole squad of beaver believers, including the Northcoast Environmental Center and the Friends of Del Norte.

Thank You Rob!

In September, Rob DiPerna, EPIC’s long-time private forestry reform advocate, retired from EPIC. For over ten years, Rob DiPerna lent his big, beautiful brain to EPIC—and we were successful because of it. Rob has a knack for remembering the smallest details even decades later. (A typical conversation. Me: Hey Rob, do you remember anything about demographic performance standards in the PALCO HCP? Rob: Well, on page 4 on the top right it says…”) The office was way more fun with his presence. Rob was always full of Rob-isms, his favorite sayings, typically drawn from the pop culture references of his youth.

Rob served two terms of duty at EPIC, first in the early 2000’s and again for the past decade. In that time, he became California’s preeminent expert on the Forest Practice Act and Rules, helping individuals and groups across the state understand the law and their opportunities to shape it. At EPIC, he was a walking-talking encyclopedia of all forest-related topics. He was a prolific writer and committed activist. He earned the respect of individuals of all stripes—from timber industry bosses to EarthFirst! treesitters to government bureaucrats—because of his expertise and his professionalism.

Rob is irreplaceable because he is so wonderfully unique. No one can match his subject matter knowledge or his kindness as a friend. We will miss him in the office, but are glad to know that we will likely run into him in the forest. Congrats on your retirement, Rob, and happy trails from everyone at EPIC.
‘Everything Is Not Fine’: Nobel Economist Calls on Humanity to End Obsession With GDP

If we measure the wrong thing, we will do the wrong thing.

"It should be clear that, in spite of the increases in GDP, in spite of the 2008 crisis being well behind us, everything is not fine," writes economist Joseph Stiglitz, who won the Nobel Prize for Economics in 2001. Photo: Local Future Project.

Nobel Prize winning economist Joseph Stiglitz is warning the world that unless the obsession many world leaders have with gross domestic product (GDP) comes to end, there will be little chance of adequately fighting back against the triple-threat of climate destruction, the scourge of financial inequality, and the crises of democracy now being felt around the globe.

In an op-ed published Sunday in the Guardian, Stiglitz says that these interrelated crises of environmental degradation and human suffering have solidified in his mind the idea that "something is fundamentally wrong with the way we assess economic performance and social progress."

Defining GDP as "the sum of the value of goods and services produced within a country over a given period," Stiglitz points to the financial crash of 2008—and the so-called "recovery" which has taken place in the decade since—as evidence that the widely-used measurement is not up to the task of providing an accurate assessment of the economy, let alone the state of the world or the people living in it.

"It should be clear that, in spite of the increases in GDP, in spite of the 2008 crisis being well behind us, everything is not fine," writes Stiglitz. "We see this in the political discontent rippling through so many advanced countries; we see it in the widespread support of demagogues, whose successes depend on exploiting economic discontent; and we see it in the environment around us, where fires rage and floods and droughts occur at ever-increasing intervals."

A central argument of his new book—co-authored by fellow economists Jean-Paul Fitoussi and Martine Durand and titled “Measuring What Counts: The Global Movement for Well-Being”—Stiglitz says that studying the last ten years of the global economy has showed him with increasing clarity why governments “can and should go well beyond GDP,” especially with the climate crisis knocking down the planet’s door.

He writes: If our economy seems to be growing but that growth is not sustainable because we are destroying the environment and using up scarce natural resources, our statistics should warn us. But because GDP didn’t include resource depletion and environmental degradation, we typically get an excessively rosy picture.

These concerns have now been brought to the fore with the climate crisis. It has been three decades since the threat of climate change was first widely recognized, and matters have grown worse faster than initially expected. There have been more extreme events, greater melting of glaciers and greater natural habitat destruction.

Everything is not fine, Stiglitz argues, but says economists have been working hard on providing new ways to measure economic health. Embraced more broadly, new economic measures that include accounting for human happiness and environmental well-being could help change the course of humanity.

As he notes in the op-ed, “If we measure the wrong thing, we will do the wrong thing.”
Illegal Pasture Irrigation in Scott River Basin Driving Klamath Salmon Extinct

Felice Pace  
North Group Water Chair

Located near the middle of the Klamath River Basin, the Scott River watershed once hosted large runs of spring and fall Chinook salmon. With its small streams and beaver dams, the Scott River Valley was also the Klamath River Basin’s number one watershed for coho salmon. However, unregulated and excessive irrigation water diversion, combined with the unregulated extraction of groundwater for irrigation, drove spring Chinook to local extinction back in the late 70s. Scott River Basin irrigation and stream dewatering is also a major reason Klamath River coho are listed as “threatened” pursuant to state and federal endangered species laws. Now, as a result of another dry fall, combined with continued unregulated irrigation, even the fall-run Chinook are being driven toward extinction.

This fall, Scott River flows have been too low to allow passage into and through most of the Scott River. As a result, Chinook salmon were not able to make it to their natal spawning grounds in and above Scott Valley. Once exceedingly rare, low flow barriers blocking access to the best and most extensive spawning grounds have become a nearly yearly occurrence on the Scott. Yet a number of ranches continue to irrigate pastures. Irrigation in the Scott River Valley is taking place after irrigation is supposed to have ended as specified in the Scott River Basin’s three water rights adjudications. Furthermore, the illegal, out-of-season irrigation is going on in plain sight and in spite of Public Trust Water Rights Complaints about the practice, which I have filed as a Scott River Basin small landowner with the State Water Board’s Water Rights Division every fall beginning in 2013.

State action is needed now more than ever because climate change is also negatively impacting water supplies. The right to specific water flows for fish in Scott River is not met during longer and longer periods each year, including the salmon migration and spawning periods, and even in years of “above average” precipitation and snow pack. And, due to technicalities in the Scott River Water Rights Decrees, most irrigation in the Scott River Basin is now not subject to watermaster service (watermasters make sure stream diversions don’t remove water in excess of each diverter’s water right).

Securing Scott River Flow Rights

Unlike most other California streams, the Scott River has a court adjudicated right to specific river flows for fish year-round. However, beginning in 1977, groundwater extraction for irrigation mushroomed, as well as illegal pasture irrigation in the fall.

Scott River flow rights are held by the U.S. Forest Service (FS); but FS officials have taken no action to secure those rights, allowing irrigators above to dewater the Scott River and key tributaries with impunity. Even when watermaster service was ended in most of Scott Valley, Forest Service managers of the Klamath National Forest took no action to demand the service in order to make sure water theft is not negating the public’s flow right for fish.

Watermasters make sure irrigators are not diverting in excess of their water rights; the absence of watermaster service in much of the Scott River Basin means that even more water theft can take place, further damaging the flows needed for salmon and the stream ecosystems on which the salmon depend.

Forest Service managers of the Klamath National Forest have an obligation to demand watermaster service for that purpose. Because all Californians have a Public Trust interest in surface water state-wide, you have the power to help end Scott River dewatering. See the box on this page for information on how you can help.

The River’s Need

The Scott River and its salmon are being progressively destroyed by unregulated surface water diversions in excess of water rights and unregulated groundwater extraction, all for irrigation. Maybe this year the State Water Board will finally take action to at least end the illegal irrigation and secure watermaster service. Or perhaps the groundwater management plan due in 2022 will finally begin to restore the flows needed to sustain a living Scott River. In order to stop the destruction, I have come to believe a tribe, fishing or environmental group with muscle and lawyers will need to break open and fix the Scott River Water Adjudications. The sooner that happens, the better.

Take Action Now for a Living Scott River

- **Tell Klamath National Forest Supervisor Patricia Grantham** to do her duty by demanding that the Department of Water Resources provide watermaster service for all stream diversion above the USGS Scott River flow gauge where the Forest Service right to Scott River flows for fish is measured:
  
  Patricia A. Grantham, Forest Supervisor  
  Klamath National Forest  
  1711 South Main Street, Yreka, CA 96097  
  pagrantham@fs.fed.us

- **Tell the State Water Resources Control Board’s top Public Trust official** that, in order to protect the Public Trust, Public Trust Resources and the river flows needed to sustain those resources, including C-ESA Listed coho salmon, and in light of the current absence of watermaster service and the documented diversion of water in excess of water rights, they should conduct year-around surveillance of all surface water diversions in the Scott River Valley, especially at times of year when the Forest Service right to flows for fish in Scott River is not being met:
  
  Erik Ekdahl, Deputy Director  
  Division of Water Rights  
  State Water Resources Control Board  
  Sacramento, CA 95814  
  Erik.Ekdahl@waterboards.ca.gov

Please Join Us!

The North Group’s Executive Committee meets on the second Tuesday of each month in the first floor conference room at the Adorni Center on the waterfront in Eureka. The meeting, which covers regular business and conservation issues, begins at 6:45 p.m. Members and non-members with environmental concerns are encouraged to attend. When a new person comes to us with an environmental issue or concern, we often place them first or early on the agenda.
Casey's Coastal Column

Whale Entanglements on the Rise due to Marine Debris

Casey Cruikshank, Coastal Programs Coordinator

In 2018, the NEC organized a team and participated in the Friends of the Dunes’ Sand Sculpture Festival. The team brainstormed together to figure out what sculpture would best represent the plight of the ocean and spread a message. We chose to sculpt a humpback whale that was entangled in crab pot line and buoys. Fast forward to October 2019 and we’ve witnessed a tragedy that almost exactly mirrors the whale that was sculpted in 2018.

On October 23, a humpback washed ashore at Samoa Beach entangled in crabbing line and buoys and struggling for survival. More than 24 hours later, in order to end undue suffering, the whale was euthanized. Many of us in this community were hit hard by this loss.

As a coastal cleanup enthusiast, it was extremely hard not to feel completely helpless about this unnecessary death. My mind races back to all of the crab lines my volunteers and I have found over the years, how I wish I could be out in the water gathering the loose lines before the entanglement happens. But in reality, we’re playing a waiting game hoping that it washes ashore and we can remove it before creatures get entangled.

As environmentalists, we need to find ways to combat the helplessness. Change does not grow in doom and gloom, change grows in positivity and perseverance. I took action to combat the hopeless feeling. First, I headed out to do a beach clean, because no matter how big or small, any effort makes a tangible difference to the environment when you clean an outdoor space. The second thing that I did was to research and make sure that I had all my facts straight about whale entanglements.

In 2018, 46 whales were confirmed to be stranded from entanglement—an increase from 31 confirmed in 2017 according to a study done by the National Oceanic Atmospheric Administration (NOAA). Smaller marine mammals have a much higher survival rate, as strandings of larger cetaceans often result in death due to dehydration, collapsing under their own weight, or drowning from sand or water covering their blowhole.

If you encounter an entangled animal on a beach, take note of your surroundings to help identify the animal’s location and contact the HSU Marine Mammal Stranding Hotline at 707-826-3650.

If you’re a local fisherman or participate in recreational fishing, never leave fishing gear or trash behind. Please also check out the California Dungeness Crab Fishing 2016-17 Best Practices Guide to Minimize Whale Entanglement Risk, which can be found online. If you’re not a fisherman, always remember that you vote with your dollar. If the high number of entanglements and abandoned mariculture debris concerns you, consider eliminating seafood from your diet. It is more important than ever before to participate in local cleanup efforts. When the male grey whale washed up just two weeks after the humpback, I visited Agate beach to pay my respects and cleanup around him. While there, my friend and I stumbled upon a loose crab pot line, just like the one that caused the tragedy out at Samoa. Any local beach cleaner will tell you that these lines are found all the time. While the grey whale’s death wasn’t caused by entanglement, it fits in with the trend of emaciated grey whales washing ashore up and down the entire Pacific coast.

Finding another crab line so close to the time when the Humpback washed ashore really made it apparent how important it is to hit the beaches harder and clean more.

The NEC has sustaining Coastal Programs that make it easy for locals to participate in our cleanups and host their own. We were recently awarded a grant that will allow us to revamp our programs to access more of the community and host more regular cleanups. If you are interested in participating in a cleanup or want to learn more about hosting a cleanup of your own, please visit yournec.org or contact me at casey@yournec.org. In times like these it’s important to remember to stay positive and put our energy toward actions that will make a difference!
Eureka Revives Zombie Road Proposal through Palco Marsh

Jennifer Kalt, Director

On November 13, the City of Eureka held a public workshop to gather input on a new plan for the 101 Broadway Corridor. Described as a “Multi-Modal Corridor Plan” to increase safety for pedestrians and cyclists while decreasing traffic congestion, the City unfortunately began this public process by reviving controversial plans for a new road along Humboldt Bay.

In 2012, the Eureka City Council voted to stop pursuing an old proposal to punch a new road through the Palco Marsh, which was purchased by the City for conservation purposes in 1985. For some inexplicable reason, the City has revived this impossible project. The Waterfront Drive Extension was rejected in 2012—and should be taken off the table forever—for several reasons.

The coastal wetlands at risk are protected by the Coastal Act, the City’s coastal regulations, and by conservation easements. The proposed road would plow through wetlands that were protected as mitigation for the Bayside Mall development. Since 1985, the City has received $1.5 million from the State Coastal Conservancy to acquire the Palco Marsh for wetland restoration and non-motorized public access.

When the Waterfront Drive Extension was rejected by the City Council in 2012, the funding was allocated to build the Waterfront Trail, which has since become a popular area for enjoying the Palco Marsh and Elk River Wildlife Sanctuary. A road in this area would not only disrupt wildlife habitat and coastal recreation, but it would also be vulnerable to flooding, liquefaction, and rising sea level, which will inundate the area in the foreseeable future.

There’s another reason that Eureka shouldn’t waste its money pursuing pie-in-the-sky road building schemes, and it’s an important one. That money is desperately needed for real, feasible, effective transportation solutions. Between 2005 and 2009, the City spent more than $1.2 million dollars pursuing this project while knowing it would never be approved. Rather than throwing more money at a road that's going nowhere, public funding should go into desperately needed safety improvements on Broadway.

“Broadway is trying to be both a downtown Main Street and a highway, and failing at both,” says Colin Fiske of the Coalition for Responsible Transportation Priorities. “It’s a frustration for drivers and a death trap for bicyclists and pedestrians. The only thing that will make Broadway both safer and more pleasant is redesigning it to make it the kind of place where people want to be, rather than the kind of place people want to get through as fast as possible.” In other words, embrace its reality as a Main Street and stop trying to make it a highway.

There are lots of proven methods for improving the safety and comfort of a downtown streetscape like Broadway. Widen the sidewalks and narrow the road. Plant trees and install art. Build buffered bike lanes, bulb-outs, and pedestrian refuges. It's not rocket science.

You can join us in urging public officials to drop the plans for new roads west of Broadway and instead, focus on multi-modal transportation to reduce traffic congestion, including projects that will make walking and biking along and across Broadway safe.

Share your ideas for the future of Broadway at: www.eurekabroadwaycorridorplan.com

2019 Bay Tours Program

Humboldt Baykeeper offers kayak and motor boat tours of Humboldt Bay and Elk River to a variety of community groups from May to October. Our motorboat tours aboard the H/V Madaket enable safe, fun, and informative Humboldt Bay tours for diverse community groups. Our kayak tours and trash cleanups with the Humboldt Bay Aquatic Center are fantastic opportunities for people who have never been out on the water.

One of the greatest rewards of implementing this program is being able to provide an experience of a lifetime for many people who have never experienced Humboldt Bay from the water. Developing relationships with community groups has built trust, encouraging people to join tours in a safe environment that may not exist for them at public tours and events.

Thanks to the California Coastal Conservancy, Humboldt Area Foundation, and the Trees Foundation’s Cereus Fund for funding the Bay Tours Program, and thanks to all of our community partners, who make our Bay Tours Program a success!

• The Wiyot Tribe
• English Express
• The Studio & Canvas + Clay
• The Humboldt County Library Summer Reading Program
• Gaining Ground and Butler Valley Community Access Program for Eureka
• Camp Cooper
• Serenity Inn
• Coast Seafoods Company
• Hog Island Oyster Company

Left: The Humboldt County Public Library’s Summer Reading Tour offered an end-of-summer Baykeeper tour aboard the Madaket for participants and their families. Photo: Jennifer Kalt.

Above: We are celebrating Jasmin Segura’s fifth anniversary as our Bay Tours Coordinator! She works with a wide range of community groups to coordinate bay tours. For info, contact Jasmin at tours@humboldtbaykeeper.org.
Brave Climate Change Scientists Choose Hope Over Politics – Part Two

In Part One (found in the Oct/Nov EcoNews), readers were introduced to two climate change scientists, Dr. Lew Ziska and Dr. Maria Caffrey. Dr. Ziska has over 150 peer-reviewed publications with the U.S. Department of Agriculture (USDA). His research regarding climate change and the nutritional value of rice crops was scheduled for publication, but when the agency pushed back with questions regarding the research that were clearly meant to prevent publication, it was blocked. Dr. Ziska retired from the USDA and began a new job at Columbia University.

Dr. Caffrey worked as a contract partner with the National Park Service for almost a decade. She developed a modeling tool to help coastal National Park areas plan for the increasing risks of sea-level rise to natural and cultural resources. While on maternity leave Dr. Caffrey found her work was being edited to remove all references to human causes of climate change. Although Dr. Caffrey was finally successful in having her model made available to parks, the supervisors who pushed back on her work left her feeling betrayed and she filed a whistleblower complaint. Though she was told there was ample funding to continue her work, she was not funded and is now unemployed.

Scientific integrity policies prohibit these types of harassment. It would be simple to assume scientists should forego the pursuit of climate change research under the thumb of the current administration. That is not the message from these two scientists. They feel a strong support for new and current scientists to continue to guide government work and they have some inspiring recommendations.

Dan Sealy

Don’t Forget Your Champions

Dr. Ziska grew up when astronauts were bigger than life champions for scientific revelation. His 8th grade science teacher inspired him to become a scientist.

Dr. Caffrey points to her husband’s unflagging support for her as she stood up for scientific and personal integrity even as they maneuvered new parenthood and financial uncertainty when she lost her job. She also points to Joe Clements, Senior Fellow, Arctic Initiative at the Belfer Center for Science and International Affairs at Harvard and was a senior government advisor for seven years.

Caffrey met Joe Clement when they both testified in July 2019 at the House Natural Resources Committee: “When Science Gets Trumped: Scientific Integrity at the Department of the Interior.” Clement reported to Congress, “One week after speaking at the United Nations on the importance of building resilience to climate change, I received an evening email telling me I’d been reassigned to the auditing office that collects royalty checks from the oil, gas, and mining industries. It was pretty clear to me and my colleagues that this was retaliation.”

In adverse times, champions can remind us of our professional standards and the importance of perseverance.
FIELD TRIPS

Every Saturday: Arcata Marsh and Wildlife Sanctuary. These are our famous, rain-or-shine, docent-led field trips at the Marsh. Bring your binocular(s) and have a great morning birding! Meet in the parking lot at the end of South 1 Street (Klopp Lake) in Arcata at 8:30 a.m. Trips end around 11 a.m. Walks led by: Gary Friedrichsen (Dec 7); Larry Karsteadt (Dec 14); Michael Morris (Dec 21); Bob Battagin (Dec 28). If you are interested in leading a Marsh walk, please contact Ken Burton at shrike103@gmail.com.

For some of our more far-reaching trips, we would like to suggest donating gas money to drivers on field trips. A good rule of thumb is $5 per 1/2 hour drive time to field trip destination.

Please note that the Willow Creek and Southern Humboldt Bird Walks have been discontinued at this time. Thank you to everyone who participated in and supported the walks!

Don’t forget about the 120th annual Audubon Christmas Bird Counts coming up in December. These are fun, all-day events where we chase down birds with other nutty birders, all in the name of science! Dates vary by location, so participate in one, two, or all of the local counts! Visit https://www.audubon.org/conservation/join-christmas-bird-count for more information on trip leaders, times, and dates. New counters are more than welcome!

Saturday, Dec 7: Blue Lake Cottonwoods and Fish Hatchery. Meet at 9 a.m. at the bridge over the Mad River in Blue Lake on Hatchery Rd; park along the road nearby. After about an hour we’ll move to the hatchery. Walk ends around 11 a.m. Contact Amaya (email amayabechler0@gmail.com) for more information.

Sunday, Dec 8: Humboldt Bay National Wildlife Refuge. This is a wonderful 2-to 3-hour trip for people wanting to learn the birds of the Humboldt Bay area. It takes a leisurely pace with emphasis on enjoying the birds! Beginners are more than welcome. Meet at the Refuge Visitor Center at 9 a.m. Contact leader Ralph Bucher (707-499-1247 or thebook@reninet.com) for more information.

Saturday, December 14: Arcata Christmas Bird Count. This count circle includes Mad River mouth, McKinleyville, part of Arcata Community Forest, Arcata, Bayside, Indianaola, Eureka, and the North Spit. Contact Tony Kurz, tonyk_71220@hotmail.com.

Sunday, Dec 15: Eureka Waterfront. Meet at 9 a.m. by the concrete fishing pier at the foot of W. Del Norte St., where we will scope for birds, then walk the Hikshar’ Trail towards the Elk River. Contact leader Ralph Bucher (707-499-1247 or thebook@reninet.com) for more information.

(continued on next page)

Potluck: December 13

Potluck Show & Tell

Join us for our End-of-Year Potluck Dinner and Show & Tell. Bring a dish to share; we will provide drinks and utensils if you need them. Share your best pictures and stories! We’ll limit photos to ten, so there’s time for everyone to get in their best yarns. So, brush up on your tall tales! Email photos for the Show & Tell to board@rras.org by December 11.

Doors open at 6 p.m., program starts at 7 p.m.
Six Rivers Masonic Lodge, 251 Bayside Road, Arcata.
Bring a mug to enjoy shade-grown coffee and come fragrance-free.

Program: January 10

On the Threshold of Change: Rising Tides and Humboldt Bay

Aldaron Laird, Co-Chair of HSU’s Sea Level Rise Initiative, will share the results of his sea-level rise vulnerability assessments of Humboldt Bay and his mapping of the bay’s shoreline. His talk will begin with how the bay was changed historically, then explore its current vulnerabilities and how it is likely to respond to rising sea levels. The landscape scale changes posed by sea-level rise will have a profound effect on Humboldt Bay’s natural habitats and land use. We will discuss how these changes might affect Humboldt Bay bird populations in particular.

City of Arcata, potential tidal inundation areas with 4.6 feet (1.5 meters) of sea level rise. Aerial image provided by Aldaron Laird.
21st Annual Snow Goose Festival of the Pacific Flyway
January 22-26, 2020
Chico, California

This action-packed 5-day event celebrates the millions of waterfowl and thousands of raptors that migrate along the Pacific Flyway and call the Northern Sacramento Valley their home during the winter months. This is one of the least explored and most amazingly diverse areas of California, with habitats that include rivers and wetlands, sweeping plains and grasslands, rolling foothills, sheltered canyons, and mountain peaks.

Find out more at www.snowgoosefestival.org/


FIELD TRIPS (continued)

Sunday, December 15: Del Norte Christmas Bird Count. This circle includes Crescent City, Tolowa Dunes State Park, Smith River mouth, and Jedediah Smith Redwoods State Park. Contact Lucas Brug at (707) 954-1189 or lucas.hendrik@hotmail.com.

Saturday, December 21: Willow Creek Christmas Bird Count. This circle is centered near Willow Creek, and includes part of Hoopa Valley Indian Reservation and Six Rivers National Forest. Contact Birgitte Elbek at 707-267-4140 or willowcreekbirdwalks@gmail.com.

Saturday, December 28: Wigwam Wetlands Volunteer Work Day. Help restore bird-friendly habitat by removing large swathes of scotch broom and lots of other invasive plant species, as well as trash, from a stretch of the bay trail right behind the Bayshore Mall. Meet us at 9 a.m. at the back of parking lot between Kohl’s and Sportsman’s Warehouse (intersection of Christie and Howell Street). Tools and gloves will be provided, or you are welcome to bring your own. Light refreshments, water, and coffee will be available, please bring your own containers. Work ends at 11 a.m. For more information, contact Jeremy Cashen at 214-605-7368 or jeremy.cashen@yahoo.com

Sunday, December 29: Centerville Christmas Bird Count. This circle includes South Spit, King Salmon, Fields Landing, lower Elk River, Fortuna, Ferndale, Centerville Beach, Eel River mouth, and Loleta. Contact Sean McAllister at judeclairepower@gmail.com.

Saturday, Jan 4: Blue Lake Cottonwoods and Fish Hatchery. See Dec 7.

Saturday, January 4: Tall Trees Christmas Bird Count. This circle includes Orick, Humboldt Lagoons State Park, a large part of Redwood National Park, Redwood Creek mouth, and part of Bald Hills Rd. Contact Kenneth Burton at shrikethree@gmail.com

Sunday, Jan 12: Humboldt Bay National Wildlife Refuge. See Dec 8.

Sunday, Jan 19: Eureka Waterfront. See Dec 15.
Our Financial Year

By Alexa DeJoannis

We ended our fiscal year on June 30, and prepared the following summary. We spent $25,213 and took in $21,192. We spent more than we made mainly because we published a third edition of Ken Burton's book, Common Birds of Northwest California. We also spent grant money on two projects: we supported a student who put together monthly restoration work days along the bayshore in Eureka (Wigi Wetlands) and we hung hummingbird feeders, native plants, and a bird ID poster at the Arcata Library. Both of these projects are ongoing and volunteers are welcome to join in. These projects were made possible by the Humboldt Bay Habitat Enhancement Fund, the Humboldt Bay Recreation Enhancement & Water Quality Fund, and the Robert M. Lochte Memorial Fund, funds of the Humboldt Area Foundation.

Our income this year was affected by several factors. We sold a lot of used books, given to us by old friends. We earned $3,186 in the bird-a-thon. And our annual banquet was catered by our own Gary Friedrichsen, which meant that more of our take went directly into our piggy bank. We have decided to stop organizing the food concession at Godwit Days in favor of outreach work there that aligns more with our mission.

Several sources of income sustain our organization through the years. Donations and membership dues are very important to us, as they show community support for our work. We invest capital on a rolling basis, which pays small, predictable dividends from year to year. Like membership and donations, fundraising events depend on community support, but their success comes from active participation. The volunteers who plan, set up, run, and clean up at the banquet and ask for pledges in the bird-a-thon are crucial to the success of these efforts. Thank you for your continued support!

Income Sources By Percentage
July 2018 - June 2019

- Investment income (6%)
- Grants (8%)
- Donations (11%)
- Membership (11%)
- Book and goods sales (12%)
- Fundraising (51%)

Expenditures By Percentage
July 2018 - June 2019

- Volunteer support (1%)
- Community programs (1%)
- Student awards (3%)
- Field trips (<1%)
- Scientific research (<1%)
- Bird box (4%)
- Evenings programs (4%)
- Bayshore restoration (6%)
- Banquet expenses (16%)
- Sandpiper (17%)
- Administration (24%)
- Book publishing (24%)

Join the Jacoby Creek School Garden Project FeederWatch

By Denise Seeger

What is Project FeederWatch? The following was excerpted from https://feederwatch.org/about/project-overview/:

"FeederWatch is a cooperative research project of the Cornell Lab of Ornithology and Bird Studies Canada (formerly the Long Point Bird Observatory). It’s a winter-long (November-April) citizen science survey of birds that visit feeders at backyards, nature centers, community areas, and other locales in North America. Participants periodically count the birds they see at their feeders and send their counts to Project FeederWatch. Anyone interested in birds can participate. FeederWatch is conducted by people of all skill levels and backgrounds, including children, families, individuals, classrooms, retired persons, youth groups, nature centers, and bird clubs.

FeederWatch data help scientists track broadscale movements of winter bird populations and long-term trends in bird distribution and abundance. FeederWatch results are regularly published in scientific journals and are shared with ornithologists and bird lovers nationwide. Project FeederWatch began in Ontario in the mid-1970s. Through Canada’s Long Point Bird Observatory, Erica Dunn established the Ontario Bird Feeder Survey in 1976. After a successful 10-year run with more than 500 participants, its organizers realized that only a continental survey could accurately monitor the large-scale movements of birds. Therefore, Long Point Bird Observatory decided to expand the survey to cover all of North America. Realizing they would need a strong partner in this venture, Long Point approached the Cornell Lab of Ornithology, and a perfect match was soon made. The Cornell Lab’s connection to thousands of bird enthusiasts across the United States, its sophisticated computer systems, and Long Point’s experience at managing feeder surveys made Project FeederWatch a hit from the start."

At the Jacoby Creek School Garden, Redwood Region Audubon Society is teaming up with Garden Coordinator, Sue Moore, to help with their FeederWatch, enjoying and identifying visiting birds. Basically, we are looking for folks who are willing to spend a couple of hours each week or month on a Friday or Saturday, 11 a.m. to 1 p.m., at the garden with Sue. On Fridays, groups of students from the school may also be visiting the garden. Teachers incorporate many aspects of the garden project in their lesson plans.

As stated in the FeederWatch Program Overview, everyone can participate. You do not need to be an expert birder, but your expertise and willingness to learn is welcome!

Where is the Jacoby Creek School Garden? It’s on the west side of Old Arcata Road, just north of the school at 1617 Old Arcata Road in Bayside. For more information or to sign up, contact Denise Seeger at daseeger@gmail.com.
Living With Dogs and Cats

and cats killed their young. The international treaty parties revised their agreement and actively began removing the non-native species which had flourished in these isolated and vulnerable islands. We carried our faithful dogs home for good to support that mission (giving me the chance to work with some of the finest mushing dogs on the planet). Today, the international community has pledged to preserve these unique polar regions as best we can, and the Antarctic is a crucial area for scientific study of global trends.

Compared to our clearly defined forays to the Antarctic, it is far more difficult to examine and reduce our impact at home, where we have lived for centuries. Our current environment is a complex mix of native and new, in a landscape physically altered and continually changing under our own hands. Non-native species have wide-ranging and deep impacts on our natural environments, a reality we are only gradually beginning to realize. Ecosystems that developed over millions of years are facing new challenges under human civilization, and they will struggle for a long time to re-establish productive balance. We recognize the non-native nature of domesticated dogs in our communities, and we try to reduce their potential for harm by limiting their reproduction, controlling stray dogs, and vaccinating our pets against disease. In many states, dogs seen “running” deer are shot to protect wild game from exhausting pursuits by our domestic animals that have access to far more nutrients, and therefore energy to run, than wildlife. Any wild animal chased by a predator can die later, out of our sight, once we call our pets away from the chase. We are also learning that our domestic animals that move around the outdoors, either with us or on their own, are capable of transmitting diseases to native animals. Rabies was a famous example during the twentieth century, which was largely controlled in dogs by education campaigns and preventative vaccination.

House cats have long been treated differently, perhaps because they have less potential to hurt people by direct attack, but we are finding that these more secretive animals can have devastating effects on our environments. Cats let outside regularly can range for miles, and instinctively stalk whether hungry or not. House cats kill and terrorize wildlife (often unknown to owners), transmit disease, and breed prolifically if unchecked. They are one of our most powerful non-native biological agents, and have accompanied us across continents and to remote habitats. As they stray unsupervised, they can be scratched or bitten, or eat other animals, and spread and carry home an array of parasites and diseases. Recent focused study has also yielded some difficult news: cats are responsible for the loss of billions of birds every year, contributing to overall losses we are witnessing on a global scale (see New York Times, Sep. 19, 2019, or other news sources for this story).

While climate change and habitat loss offer political challenges for our larger society, the lives of our domestic animals are, thankfully, an area where we can effect positive change starting on a smaller scale. We have already improved the lives of dogs by spaying and neutering, giving unwanted animals new homes, keeping them healthy (and ourselves, by extension), and passing legislation that defines best practices for caring for the dog population. We have protected our environment by making sure they don’t transmit disease to wildlife, picking up their waste so it won’t wash into local waterways, and controlling them while outdoors to protect wildlife from attack or exhaustion. It’s time to do cats a similar service through many of the same means.
Planting for Butterflies and Caterpillars

Everyone loves butterflies, and everyone wants more of them in their garden! What's the best way to attract them? Planting diverse native plants! Adult butterflies eat flower nectar, so providing a variety of nectar-producing species that bloom at various times of the year will attract adult butterflies.

Adult male butterflies are looking for females, and females look for host plants (where they will lay eggs) to provide food for their caterpillars. Planting species that are appropriate host plants for a variety of butterflies will ensure their caterpillars are well-fed.

We asked three local butterfly enthusiasts, Gary Falxa, Bill Rodstrom, and Laurie Lawrence, for a list of the 12 most commonly encountered, easily identifiable, local butterfly species, and their host plants. The resulting list is posted on our chapter website (http://northcoastcnps.org/index.php/gardening/gardening-with-natives-w-brochure) and will be printed in our December newsletter. It will also be available at our plant sales.

Caterpillars, while at the bottom of the food chain, are incredibly important for a variety of other species. For example, caterpillars are essential food for small bird nesting growth. Native plant species host more caterpillars than non-natives, and native plants in landscapes result in greater reproductive success for birds. Planting diverse native plants in your garden will maximize the options for butterflies, and by extension, bird species as well.

There are more species of moths than butterflies, so presumably there are more moth caterpillars out there than butterfly caterpillars. The National Wildlife Federation has a website that lists the number of caterpillar species known to eat each species (or genus) of plant (www.nwf.org/NativePlantFinder). Plants with a higher number of species listed indicates the possibility for a higher number of caterpillars likely on that host plant.

Some caterpillars however, such as the monarch butterfly, are distasteful or even toxic to birds. The bristles on many moth caterpillars are also a defense mechanism against birds. Most of us can’t expect to know how many local moth or butterfly species use each plant in our garden, or how palatable each of the caterpillars is, so again the best plan is diversity in your planting.

Interested in learning more? Speakers and displays about pollination and pollinators will be a special feature at next spring's Wildflower Show, May 1, 2, 3, 2020 at Jefferson Community Center, Eureka. Mark your calendars now for this wonderful event!

Native Plants all Winter

No need to wait for the spring native plant sale (May 2 & 3, 2020). A selection of our chapter-grown native plants is available to buy every day, 12 noon-6 p.m., at the Kneeland Glen Farm Stand at Freshwater Farms Reserve, 5851 Myrtle Ave. (near Three Corners Market). If you don’t see what you want there, you can ask if we have it by contacting us at northcoastcnps@gmail.com.
In Congress:

Good News!!! Six years of NEC’s close involvement with Congressman Huffman and a wide coalition of conservationists resulted in an important success. The Wilderness, Recreation, and Working Forests Act, H.R. 2250, passed out of the U.S. House Natural Resources Committee in what is referred to as a “mark-up” hearing on November 20 with a 22-11 bipartisan vote.

H.R. 2250 has been a priority concern for the NEC and members have been working on this legislation with a coalition of conservationists for six years. Congressman Huffman worked tirelessly with communities, local businesses, and conservationists to craft a bill that will designate over 270 miles of Wild and Scenic River waterways in northwest California including the Eel River, the South Fork and East Fork North Trinity Rivers, Redwood Creek, Canyon Creek, and many tributaries. The bill will also add over 200,000 acres to designated wilderness and over 700,000 acres of working forests into targeted reforestation efforts. The bill promotes cooperative efforts to continued restoration of the clear-cut lands now within Redwood National and State Parks and boosts the local outdoor recreation economy by mandating coordinated recreation planning among federal land managers and creation of the long-distance Bigfoot National Recreation Trail.

This bill was one of three similar bills that increase wilderness and wild and scenic river designations on lands and waters under the management of federal agencies.

Congressman Huffman wrote: “The Northwest California Wilderness, Recreation, and Working Forests Act is focused on a future for Northwest California where public lands are restored and protected, the outdoor recreation economy continues to grow, and rural communities can thrive.”

The next step is a vote by the full House of Representatives. The date of that vote has not yet been set. Senator Kamala Harris has already begun the process in the U.S. Senate by introducing identical legislation to Huffman’s bill. It is unknown whether action will take place in the Senate this year, but the NEC is working hard to keep this important bill moving forward and looks forward to it becoming law.

Economic Policy and Natural Resource Impacts:

Supporters of the current administration frequently point to the healthy state of the U.S. economy under this President. Indeed, many economists are quick to agree that unemployment is down and those who can afford to risk money in stocks are happy with the general trend of the stock market. Of course, there are good economists who correctly point to some weaknesses in that analysis, but overall economists agree; the U.S. economy is healthy. Conservationists, however, should be asking at what cost? When regulations, especially the form of environmental regulations, are loosened or removed from energy developers and producers, timber management, and manufacturing, those businesses generally then produce more profit. That profit comes from disregard for clean air, water, endangered species protections and a host of other environmental concerns that are being diminished primarily by Executive Orders coming from the White House and agency heads, not from new laws. Why is that important? That means we may be looking at a false economy. Short-term economic boosts will be paid for in the costs of our children’s health and costs of restoring eroded lands and toxic air and water. So next time you hear how we should appreciate the better economy and more jobs, realize that is a temporary benefit and the costs will be paid eventually at the expense of generations to come.

From the White House:

The Environmental Protection Agency (EPA)—the primary agency in charge of setting guidelines for clean water, air, etc., and enforcement of environmental regulations—wants to make it more difficult for federal agencies to use the best science to guide decisions. With the cleverly worded “Strengthening Transparency in Regulatory Science,” the EPA is continuing a false narrative knowing full well that if the policy is adopted it will harm—not help—environmental protections. The policy would require scientists to turn over all raw data, including confidential medical data, before the study can be used in decision-making. Some studies are proprietary (essentially copyrighted) by states or academic institutions. As a result, some of the most robust and important studies would not be able to be used in developing clean air, water, and other environmental protection rules.

In the Courts:

Drilling in the Arctic Ocean

But there are, in fact, limits on what a President can do with Executive Orders. In April, an Alaskan U.S. District court Judge, Sharon Gleason, ruled against President Trump saying his administration had “exceeded the president’s authority” by pushing for the drilling in over...
Zero Waste Humboldt is scheduling several 2020 training workshops for the ZWH Business Certification Program, for nonprofits and environmental activists, and for organizers and producers of large events. If you are interested, please email contact@zerowastehumboldt.org. With enrollments of 20-25, we will be able to offer training in the Zero Waste method at a reduced enrollment fee of $85/person.

Please join Zero Waste Humboldt at our office just off the plaza for Arts! Arcata, featuring talented local artist Patricia Sennott. Patricia has graciously offered to donate 35% of any art sold at this event to ZWH.

Margaret Gainer, board member

Zero Waste Humboldt is organizing a Redwood Coast contingent to participate in Zero Waste Week in the San Francisco Bay Area in March. If you are interested to learn more about Zero Waste and get updates on the state of recycling, ZWH invites you to join the planning for travel and participation in a week of training workshops, facility tours, conference seminars, and exhibits.

The National Recycling Coalition (NRC) is a national non-profit network of 6,000 members from the fields of waste reduction, reuse, recycling, and composting. The NRC will host a conference with presentations from global experts on Zero Waste best practices and current information on March 18-19 at U.C. Berkeley.

Before the NRC Zero Waste conference, the annual Zero Waste Youth Convergence will be March 14-15. Zero Waste USA has scheduled ZW Certified Training Courses March 16 and 20, and the Northern California Recycling Association will present its energizing annual Recycling Update on March 17 at Freight & Salvage and is scheduling Bay Area tours that week. Details will be finalized in the next month.

To learn more and coordinate with other Humboldters planning to attend, email contact@zerowastehumboldt.org.

Zero Waste Humboldt
zerowastehumboldt@gmail.com

Read EcoNews AND the Collector!

Colin Fiske, Executive Director

The Collector is CRTP’s curated weekly collection of transportation news and information focused on the North Coast, but also includes important and interesting items from state, national and international news. It’s posted on CRTP’s website each Friday and sent to an email list of more than 400 people (and growing!). If you’re not one of them, what are you waiting for?

The Collector brings you the information you need about local transportation issues—and related topics from land use to public health—with short summaries that are pointed, sometimes humorous, and often opinionated. There’s also always a link to sources for more information. Recent stories we’ve covered have ranged from the implications of county rezoning for neighborhood walkability to the effects of a new law on Amtrak bus service to Humboldt. This stuff is important—but if it sounds dry, it’s not! Really, give it a read. We keep it pithy and interesting.

The Collector also has regular features like the current Weekly Street Story Update, which highlights a notable location or trend from local reports of unsafe locations, crashes or near misses on the Street Story platform (see our article in the Aug/Sep edition of EcoNews for more information on Street Story). Past features have included the “Bike Law Fact of the Week,” where we explored little-known but important laws related to bicycling in California, and the “Bike Lane or Sidewalk Obstruction of the Week” feature, which included a picture of an object found in a local bike lane or sidewalk that shouldn’t be there. Who knows what we’ll come up with next?

We’re also happy to receive submissions of suggested items we should cover.

Sign up to receive the Collector at: www.transportationpriorities.org/subscribe-to-the-collector, or send an email to: colin@transportationpriorities.org.
Voice Your Support for Removing Klamath Dams

Action Alert
California Wilderness Coalition (CalWild)

This summer, the community group in charge of the removal process of four dams on the Klamath River, the Klamath River Renewal Corporation, submitted an important filing with the Federal Energy Regulatory Commission (FERC) that will help the project stay on track for deconstruction as early as 2021. CalWild and many other groups signed on.

The benefits of removing the four dams (JC Boyle, Copco No. 1 & 2, and Iron Gate) will be tremendous, with the return of anadromous salmonids to some of their traditional habitat for the first time in decades. The return of these crucial apex species will help grow the regional commercial and recreational fishing and watersport industries, create hundreds of jobs, enhance tribal self-sufficiency, and help mitigate toxic blue-green algae blooms that currently thrive in the dams’ reservoirs and pose a health hazard to all dependent communities.

A final decision for the transfer from FERC is expected as early as the end of the year. CalWild is asking supporters to add their names to an online petition to show the wide breadth of community support that exists for this amazing project. Visit this link to sign the petition online:
https://www.klamathrenewal.org

You can learn more about the dam removal process at www.klamathrenewal.org.

Jordan Cove LNG Final Impact Statement Still Deficient

Press Release
Power Past Fracked Gas

On November 22, the Federal Energy Regulatory Commission (FERC) released a Final Environmental Impact Statement (FEIS) for the proposed Jordan Cove LNG export terminal and fracked gas pipeline. This project has faced fierce opposition for more than a decade by a grassroots coalition of impacted landowners, anglers, small business owners, tribal members, health professionals, and communities across Oregon and Northern California.

The FEIS does not grant Pembina permission to build the Jordan Cove LNG project. The Canadian fossil fuel corporation is still missing federal, state, and local permits that are required for the project. The FEIS is prepared by the federal agencies involved in reviewing the project to assess its potential impacts to the environment, from drinking water supplies to healthy forests.

In 2016, after a similar FEIS, the Federal Energy Regulatory Commission denied this project because of adverse impacts to landowners and a lack of public need for the project.

“FERC was right to reject this dirty fracked gas facility in 2016, and nothing has changed since then,” said Sierra Club Senior Attorney Nathan Matthews. “This project remains a threat to clean water and the climate, and it should never be built.”

This spring, the Oregon Department of Environmental Quality (DEQ) denied a critical Clean Water Act permit for the Jordan Cove LNG project specifically because “DEQ does not have a reasonable assurance that the construction and authorization of the project will comply with applicable Oregon water quality standards.” This state authorization is required for the project.

The FEIS does not remedy the deficiencies identified by the Oregon DEQ, or other gaps in the analysis. As the FEIS repeatedly acknowledges, many elements of the proposed projects have yet to be developed or specified, such as plans to mitigate impacts on non-federal lands. Without these plans, there is no basis for the FEIS’s assertion that the project’s impacts—which administration for failing to address Oregon’s substantive concerns and threatening to overstep the state’s authority under the Clean Water Act. In July 2019, Oregon agencies submitted over 200 pages of comments detailing gaps and flaws in FERC’s analysis.

“Our communities in Southern Oregon are counting on Oregon’s leaders, including Governor Brown, to stand up to this dangerous, destructive proposal,” said Natalie Ranker of North Bend. “After 15 years and three inadequate Environmental Impact Statements from FERC, it’s time for Oregon to stand up and reject this project.”

Additional information about the Pacific Connector Gas Pipeline is available at:
https://www.blm.gov/oregon-washington/energy-independence/pacific-connector

Submit a protest letter electronically through the BLM’s ePlanning project website and follow the protest instructions highlighted at the top of the home page:
https://go.usa.gov/xEt7B.

To submit a protest in hard copy, mail to:
BLM Director (210)
Attention: Protest Coordinator
P.O. Box 71383
Washington, D.C. 20024-1383
Fill Your Holidays with Joy, Not Waste

Jackson Carrasco, Zero Waste Intern

With the holidays racing towards us, don’t forget to practice zero waste in your gift giving and cooking this season! Zero waste practices can help us reduce our ecological footprint—our individual environmental impact from using natural resources of the earth.

Though you may not be Gordon Ramsey, your cooking skills can still be complemented by sustainable zero waste practices. In the kitchen, local meats such as turkey can be purchased to forgo the carbon emissions produced by importing goods. Refrigerator trucks emit carbon dioxide and other air pollutants as they burn fossil fuels and carry your dinner to the local supermarket.

Plastic packaging is mostly petroleum based, carbon intensive to produce, and will exist on earth long after you are gone. Explore your local farmer’s market for fresh, unpackaged, local fruits and vegetables. Lean away from pre-packaged goods and utilize the bulk section of your local co-op for constructing side dishes and desserts. Here, various ingredients can be purchased for your famous pumpkin pie, tamales, or fruit cake using reusable containers.

At the dinner table, do without all of the single use plastic dishes and utensils. Raise your level of class, and make good use of grandma’s fine china and silverware. Reusable cups or mason jars can be used for your devout beverage of choice when on the go.

During the season of giving, take into account zero waste practice in selecting gifts for your family, friends, co-workers, and estranged in-laws. Rather than giving a physical object, give an experience to a loved one. Experiences like concert tickets, a trip to the beach, or a season lift ticket can reduce the amount of physical “stuff” we give away. Subscriptions to online magazines, movie streaming platforms, or music streaming services can also serve as an alternative to a physical gift.

If you do decide to gift a physical object, take a few things into account:
1) Where did it come from? 2) How was it made? 3) Where will it end up at the end of its life?

If you consider these three questions while selecting a gift, you can analyze resource impacts, the object’s contribution to landfills, and the overall ethics of the purchase—which will help you choose a gift that will have the least amount of negative impacts for our planet.

If you wrap gifts, don’t forget that conventional wrapping paper tacks on extra waste to the gift (not to mention extra time). Who needs wrapping paper anyway? Break the social constructs of the season and give away an unwrapped gift. Or, if you aren’t feeling so daring, use a reusable gift bag.

Whatever your holiday season entails, don’t forget to weave in environmentally sustainable practices wherever you can to prevent holiday waste!

DONATE YOUR EXTRA SHOES!

Coastal Grove Charter School’s Class of 2021 is conducting a shoe drive fundraiser through December 13 to raise funds for their 8th Grade Trip to Washington, D.C.!

The students will earn funds based on the total weight of donated pairs of gently used and new shoes, which will be collected up by an organization that gets shoes to those in need in countries like Africa.

Drop off locations:
In Eureka: Shipwreck (430 3rd Street) and MikkiMoves Real Estate (805 7th Street).
In Arcata: the Jogg’n Shoppe (1090 G St.)
In McKinleyville: Humboldt Human Resources (1834 Central Ave, Suite D).
Gary Falxa

Gary Falxa is the consummate environmental steward, and without question, a “Kin to the Earth.”

Gary Falxa, a dedicated NEC board member, reluctantly retired recently after five years representing the local chapter of the California Native Plant Society. His contribution adds to what is essentially a lifetime of effort on behalf of environmental education and species conservation. Gary has played an important role in conserving a wide range of endangered species in California, including high profile species such as the California condor and marbled murrelet, as well as the Oregon silverspot butterfly and the Lassics lupine, to name just a few.

(Gayle Garman): I met Gary when we were both PhD students at UC-Davis. In November of 1986 this vintage Silver Streak trailer appeared in the backyard of the house where I rented a room. My housemates introduced me to the occupant—a Zoology graduate student who was studying ecology of Black Oystercatchers along the Sonoma County coast. It has been 33 years and we still share interests in ecology and natural history, environmental protection, hiking, canoeing, music, and travel.

Over time I found that Gary is most at home in the outdoors either in the U.S., Mexico, or any other place where people still live with a solid connection to nature. Like others on the crusade to secure protection for wild areas and wild species, Gary draws inspiration and energy for this work by witnessing first-hand what is at stake. Domestic road trips and travel to other countries to experience the natural beauty and documenting animal and plant communities observed in his field journals will always be a key component to what makes Gary tick.

Gary began his natural history education early with family camping trips up the east side of the Sierras, back when the road over the high Tioga Pass was a single gravel lane. Gary set about learning all he could about a wide range of animals and habitats. His formal studies began with undergraduate work in Animal Ecology at Evergreen State College in Washington. After graduation, Gary held a series of jobs implementing studies of birds and mammals in Mexico, Texas, the Florida Everglades, and forests of Malaysia and Guatemala. He also spent two years studying nesting success of the remaining wild California condors just prior to the birds being brought into captivity.

During his graduate studies at UC-Davis, Gary’s travel experience landed him a job that provided the opportunity to hone his communication skills. The part-time job to support his graduate studies ended up being a six-year stint of leading Natural History tours in the U.S. and in Latin America. From this work Gary developed a knack for sharing ecology and conservation information to non-biologists, a vital tool for naturalists advocating for the environment.

Gary began his career with the U.S Fish and Wildlife Service in Sacramento. His duties included assessment of the effects of federal flood control projects such as levees and impacts to riparian areas. Gary maintained a toehold in fieldwork by conducting yellow-billed cuckoo surveys in Sacramento River riparian habitat. Upon transferring to the Fish and Wildlife Service office in Arcata, Gary worked with local consulting biologists to establish yellow-billed cuckoo surveys in potential habitat along Humboldt County rivers, producing some of the first documented observations of cuckoos in the county.

(Gayle Garman): I’ve always envied good generalists in field biology. Gary is one of those special folks, a “renaissance” field biologist really. He’s a bird guy, but also has a good working knowledge of butterflies, mammals, plants, mushrooms, and many other groups. He has the innate curiosity and patience, not to mention volumes of field manuals, and importantly, cumulative knowledge to identify damn near any species we encounter in the wild.

Gary’s a mover, and works hard. I began working closely with him at the Arcata U.S. Fish and Wildlife office soon after 9/11, and for 11 years we spent long days working together, primarily on recovery of the endangered Lassics lupine and Oregon silverspot butterfly. Endangered species work can be exhausting, and demoralizing. His no-nonsense scientific approach, attention to detail, and especially his comradery were most appreciated. In 2017, the USFWS made him a “Recovery Champion,” recognizing 21 years of effort to save endangered species, and for leading the marbled murrelet monitoring effort. He continues to be involved with endangered species, and recently implemented research on tidal fluctuations at Stone Lagoon.

Gary plays hard too, with an increased emphasis since he retired from the USFWS. Maintaining old relationships and commitments are important to him, like his annual romp to SE Oregon with old friends from his days at Evergreen State College. He continues to volunteer annually at the Sagehen Creek Field Station, north of Lake Tahoe, helping monitor long term impacts of innovative fire management on wildlife resources. He and Gayle sponsor annual picnics for fellow biologists, old friends and new, facilitating comradery and good communication among local professionals. He loves getting up in the local mountains, and of course a good fishing or rafting trip is never too far in the future for him.

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Gayle Garman and Dave Imper

Gary Falxa in a typical pose with binoculars, field notes, and butterfly net. Photos courtesy of Gary Falxa.
Salmon
Continued from page 5

...strongholds. We must protect these critical watersheds better in the future than we have in the past.”
The FISH Act would adopt one step in a much larger strategy needed to recover our salmon populations. Congressman Huffman is looking at strengthening offshore fisheries protections through the Magnuson Stevens Act which authorizes monitoring of fish population and adjusts catch limits to match species abundance.

Also needed are stronger protections and restoration efforts on degraded rivers such as the Klamath and Eel Rivers which have suffered over a century of bad forestry practices in the watersheds, dams, and other development. Legislation such as Huffman’s HR 2550, the Wilderness, Recreation and Working Forests Act, would designate 370 miles of some of our wildest remaining rivers for protection and designate large tracts of public forest lands for restoration.

“Rep. Huffman’s proposed FISH Act is an important—indeed, urgently necessary—part of what we are going to need to do to keep the fish coming back,” states Greacen.

Werschkull is enthusiastic. “We look forward to a time when Congressman Huffman’s FISH Act will be passed by Congress and signed by our President. We need to continue to work with our communities and state and national partners to advance this legislation.”

You can write to Congressman Huffman in support of the FISH Act, his Wilderness Act and other legislation to assure generations of fish and people coexist. Rep. Huffman’s contact information can be found in this EcoNews issue on page 14.

To learn more about the Smith River Alliance go to: https://smithriveralliance.org/.
For more about the Wild Salmon Center check out: https://www.wildsalmoncenter.org/.
For more about Friends of the Eel River check out their website at: https://eelriver.org/.
To learn more about the Wilderness, Recreation and Working Forest Act go to: https://mountainsandrivers.org/.

The Northern Spotted Owls’ Tree-Sit
by Ellen E. Taylor

...based on a true story occurring in the Mattole Watershed, July 2019

One still June night, when the moon hung bright, and the wind blew a minor key
And the fog made a bridge across Rainbow Ridge from the redwoods to the sea
Two owls, gone astray from their range in Coos Bay where their nest in a fir had been felled
Floated down to a knoll near the blue Mattole, by sheer hunger and faintness compelled.

Well, they’d fasted a week, so each sharpened his beak,
and searched through the darkness for prey,
And to their surprise they encountered the eyes of two tree voles not far away.
More astonishing yet, and causing upset, also thwarting their instinct to zoom in:
The voles took their ease on the angular knees of a beast unmistakably human.

These owls were not chicks and they’d studied the tricks of this species well known to be wily.
Was this a new study? Each looked at their buddy. The human regarded them shyly.
Though weary, these owls had got pluck in their bowels, also wit, self-assurance and poise.
And though prospects be dark, be there but a spark, they’d act without panic or noise.

So the owl who was bigger soon marshaled his vigor, saluting the being in that tree:
“What scientist sits in a tree in the mist, with such tasty young voles on their knee?”
“My name it is Rook. Turn around, take a look” said the human, with intake of breath:
Below they beheld what the chainsaw had felled: tree corpses moon-frozen in death.

“This tree they want too, so a road can push through to reach forests at further locations
But we know such plunder rips planets asunder. I’m here for unborn generations”.
The owls, much impressed, now the human addressed: “We’ve just made a strenuous portage.
From habitat natal, where there is a fatal owl nesting and foraging shortage."

The smaller owl, blinking, went on “We’ve been thinking of one generation that begs
To make an appearance. We need to find clearance. To speak more directly, my eggs.
Now, humans get queasy: it makes them uneasy when species like us go extinct.
It reminds them that they might soon go the same way and the risk, to be plain, is distinct.

“Our survival’s in doubt, so that gives us some clout. If they locate our nest, they’ll protect it!
We’ll search for a site in a tree that looks right, then build noisily so they detect it.”
The owls disappeared, and that day Rook was cheered
by much squawking and owl exclamation
And soon a small horde of biologists roared to the ridge for site documentation.

And thus was begun a campaign that soon won the allegiance of Doctors of Science:
For if there is hope for our planet, the scope is a great Interspecies Alliance:
Save the owls! Save the trees! Save the whales! Save the bees! Save the birthright of fledgling and child
Leave the venomous breath of the sirens of death and answer the call of the wild!
Tom Wheeler

Mistletoe is the horror of many a person at the annual Christmas Party. Mistletoe may be associated with unwanted advances, but EcoNews readers should also know that this weird shrub is fascinating and important.

Mistletoe is a hemi-parasitic plant, meaning that it draws some, but not all, of its nutritional requirements from its host plant. It attaches to the host plant through its haustorium—the root-like structure that penetrates into the host’s vascular tissue—to slurp up water and sugar. Infections can be so bad that they can kill the host tree, either by drawing too much from the host plant or outcompeting the foliage of the host, practically replacing all of the growth. In most circumstances, however, mistletoe adds complexity and diversity to our forests.

Although mistletoe is typically poisonous to humans, the white berries provide food for birds, deer, and other mammals. And just because it is poisonous doesn’t mean there aren’t other uses. Mistletoe has a long history as a folk medicine, treating everything from infertility to arthritis, and there is ongoing research into whether the plant may contain anti-cancer properties that could be isolated.

Birds spread the growth of mistletoe. The fruit of the mistletoe is covered with a sticky substance called viscin. Depending on the species of bird and mistletoe, the seed may either be regurgitated or defecated. The sticky viscin will cause the seed to attach to the branch where it will wait until it germinates and the haustorium wiggles its way into the bark of the tree. Mistletoe is slow growing, as the haustorium pulls nutrients from the tree until, after around five years, the first leaves emerge.

But not everyone likes mistletoe. Despite its natural role in forests, the Forest Service routinely uses mistletoe infection as a justification for logging—including in old-growth and late-seral forests—despite the important nesting platform that dwarf mistletoe provides for owls. Timber companies hate mistletoe because it can stunt the growth of trees grown for timber. If caught early enough, or if someone diligently removes the new growth, it is possible to remove mistletoe from an infected tree. Otherwise, the only way to remove mistletoe is to remove the infected branch.

It is not clear how mistletoe came to be associated with Christmas. The usual mistletoe tradition holds that a man can kiss whatever woman stands under the mistletoe, and a refusal by the woman would bring bad luck. The first written record is from famed American author Washington Irving, who wrote in 1820, “the mistletoe, with its white berries, hung up, to the imminent peril of all the pretty housemaids.”
CA IDENTIFIES METHANE SUPER EMITTERS

NASA, the California Air Resources Board, and the California Energy Commission studied methane emissions sources over a two year period with a plane equipped with a next generation Airborne Visible Infrared Imaging Spectrometer, which allowed identification of even small methane plumes that are frequently undetected.

Fifty-five individual point sources were identified as super-emitters, contributing about a third of California’s total methane budget. Thirty landfills (out of the 270 surveyed) contributed 40 percent of the total point-source emissions detected.

This was the first such attempt to estimate emissions for individual sources over time across such an extensive area. The results will be used to help identify needed emissions control improvements.

A total of 550 point sources were identified.

PREHISTORIC PUPPY FOUND PRESERVED IN PERMAFROST

A prehistoric puppy was found in melting permafrost in the Far East of Russia with its limbs, hair, teeth, eyelashes, and whiskers in tact. It is believed to be 18,000 years old.

While a nearly complete genome has been sequenced, scientists are still not sure if the pup is a dog or a wolf, which presents an intriguing mystery. The puppy, which has been determined to be a male, could be a missing link between prehistoric wolves and modern dogs. A third round of genome sequencing might provide more clues.

Global temperature rise due to climate change is increasing the rate of permafrost melt, resulting in the discovery of more woolly mammoths and other prehistoric animals.

SOUND CAN HELP RECOVERY OF CORAL REEFS

“Acoustic enrichment” could be an important tool in the recovery of coral reefs, according to a recent study by an international team of UK and Australian scientists.

Playing recordings of healthy coral reefs, which are rich with sound, through loudspeakers under water near degraded reefs can attract young fish to the area. The study found that areas playing healthy reef sounds attracted twice as many young fish as silent reefs, and also increased the number of species by 50 percent.

BLUE WHALE HEART RATE RECORDED FOR FIRST TIME

Stanford University researchers have succeeded in recording the heart rate of a blue whale in the wild for the first time, providing unique insights into its biology and evolutionary limits.

A device containing electronic sensors was attached to a whale’s left flipper using suction cups, which recorded its heart rate through electrodes embedded in the suction feet.

The data surprisingly show that the lowest heart rate, which occurred during foraging dives, was 30 to 50 times lower than predicted—dropping to an incredible low of two beats per minute. The heart rate increased when surfacing, reaching a high of 25 to 37 beats per minute.

Blue whales are the largest animals known to exist, possibly because the extreme body size pushes the heart to its limits.

NEW SATELLITE TO TRACK SEA LEVEL RISE

U.S. and European agencies announced the future launch of a new satellite mission to study rising global sea levels. The Sentinel-6/Jason-CS mission, set to last 10 years, will be the longest running mission of its kind—adding to three decades of prior data.

The mission will be comprised of two satellites that will be launched five years apart. The satellites will measure sea level rise down to the millimeter, and how fast the rate of rise accelerates. Prior data has shown that the world’s oceans have been rising an average of 3 millimeters per year, but the rate of rise has been increasing.

The first of the two satellites will launch in November 2020.

BACTERIA COLONIES HITCHHIKE ON MARINE PLASTIC

Plastics in our oceans aren’t floating out there alone. A new study revealed that marine plastics quickly become covered in a thin layer of biofilm, known as the Plastisphere, which can affect whether they float, sink, cause them to break down more quickly, or even alter the smell or taste of the plastic.

Scientists at the Marine Biological Laboratory in Woods Hole took samples from a variety of ocean sites and discovered diatoms and bacteria in heterogeneously mixed colonies from three phyla: Proteobacteria, Cyanobacteria, and Bacteriodetes.

The team leader, Linda Amaral-Zettler coined the term “Plastisphere” for the biofilm.

PAINTING COWS TO LOOK LIKE ZEBRAS?

While painting cows with stripes to look like zebras might seem like nothing more than a silly amusement, there apparently is a potential environmental benefit—painting stripes on cows could reduce the use of pesticides.

Scientists in Japan have discovered that painting white stripes on dark colored cows in a way that resembles a zebra reduced attacks by biting flies by nearly 50 percent, which in turn reduced the need for pesticides. The polarization of light on black and white surfaces impairs the flies’ perception.

Irritation and stress from biting flies is estimated to cost the livestock industry billions each year.

SHORTS

Short bits of interest and curiosity.

Morgan Corviday

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...120 million acres when he signed an executive order to allow offshore oil drilling in the Arctic Ocean. Judge Gleason’s decision restores a ban on drilling in most of the U.S.-controlled Arctic Ocean. EarthJustice attorney Erik Grafe said in a statement reported by the Associated Press, “The president cannot just trample on the constitution to do the bidding of his cronies in the fossil fuel industry at the expense of our oceans, wildlife and climate.” Congressman Huffman introduced a bill to permanently ban drilling in the U.S. Arctic Ocean as well as most of the U.S. Pacific and Atlantic coasts. These bills have not moved yet.

**National Monuments**

In another blow to President Trump’s agenda to drop protections on public lands, Federal Judge Chutkan ruled against the Justice Department’s motion to dismiss lawsuits that challenge the controversial reductions in acreage in Bears Ears National Monument and Grand Staircase-Escalante National Monument, both in Utah. Unfortunately, this is a temporary success while the lawsuits proceed.

...generation anticoagulant rodenticides have arguably impacted more species than any other pesticide found at these sites. These rodenticides not only poison rodents, but also many non-target species of wildlife, including ESA-listed and candidate species such as the northern spotted owl and Pacific fishers. According to peer-reviewed research, over 80 percent of Pacific fishers now test positive for rodenticides. Dr. Mourad Gabriel, co-director of IERC states, “In fishers, there is an in-utero transfer, and a mother’s milk transfer as well,” regarding rodenticide poisoning of fishers. So, it’s not just bioaccumulating through the food web—it’s also multi-generational.

Before CROP, there was no bi-partisan effort or political will to remove trespass grows from the landscape. After two years of meetings and listening to communities and scientists, CROP is now spearheading a state and national effort to secure state and federal resources to reclaim trespass grows on National Forests, increase Forest Service law enforcement and overall presence in National Forests, and educate the public on the dangers of ingesting unregulated cannabis.

CROP is directed by an Advisory Board, which includes the Northcoast Environmental Center, other environmental organizations, state and federal agencies, local officials, tribes, scientists, and the legal cannabis industry. CROP is fighting on behalf of California’s wildlife, users of public lands, and downstream communities long plagued by trespass grows. To learn more about CROP, or how to contribute, please visit [www.cropproject.org](http://www.cropproject.org).

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