



OCH News

Fourth Quarter 2021 (October–December)

Quarterly News

ENVIRONMENTAL NEWS

What is Environmental Justice?

By Samantha Grable



Photo Courtesy by Vermont Law School

Environmental Justice, you've probably heard the term in discussions of politics and the environment. It has become an increasingly popular issue and one that must be looked at, but what does it mean? Environmental Justice is defined by the Environmental Protection Agency (EPA) as "The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies". This ensures that all communities, regardless of race, ethnicity, class, etc. do not share a disproportionate amount of negative environmental effects, and have a say in environmental decision making. It is only fair that everyone has equal access to clean air, water, and resources. But why do we need this movement?

The [environmental justice](#) movement is a response to environmental injustice, which is the unequal distribution of exposure to pollution and the subsequent health and environmental effects of that. This could include being closer to a coal power plant or living in areas on less stable ground at increased risk during an earthquake. Low-income communities of color tend to face disproportionate effects of natural disasters and increased negative environmental consequences as opposed to middle class and/or white communities in the U.S. Black neighborhoods in New Orleans faced increased flood risk and damage to their homes during Hurricane Katrina, as the legacy of racial segregation there left these neighborhoods below sea level. Environmentally degrading industries, such as petrochemical or fossil fuel industries, also tend to be located in low-income areas. This can often be the result of racist zoning boards, or decisions to put them in areas with less social power. These industries tend to pollute their surrounding areas, which are often the neighborhoods and communities of people of color. Low-income families and individuals often have no choice but to reside in

Species Spotlight

Pacific Pocket Mouse

By Sanjay Das

Orange County (OC) is home to many native rodents. These animals play an important role in the natural ecosystem. However, we consider rodents as pests. In fact, native rodents live in wildlands, generally away from human homes. But, the rodents (mostly rats) that we see in and around human homes are non-natives that were introduced here from Europe about one hundred years ago. It is important to know about our native rodents that have played a key role in balancing our natural ecosystem of OC. Before diving into the details of the OC rodents, it is essential to know about rodents themselves.

Rodents are mammals characterized by a single pair of continuously growing incisors (front teeth) in the upper and lower jaw. They vary in their ecology and lifestyles and are found in almost every terrestrial habitat. They can be arboreal, fossorial (burrowing), saltatorial/ricochetal (leaping on their hind legs), or semi-aquatic. In general, they have well-developed senses of smell, hearing, and vision. Rodents include mice, rats, squirrels, prairie dogs, porcupines, beavers, guinea pigs, gophers, and hamsters. They play an essential role in the ecosystem and are important in seed and spore dispersal, pollination, seed predation, energy and nutrient cycle, modification of plant succession, and species composition. Furthermore, they play an important role in the health of grassland and woodland systems and are a significant source of food for many predators and scavengers such as hawks, foxes, bobcats, and even wolves.



The smallest mouse species in North America, the Pacific pocket mouse. Photo Courtesy by the San Diego Zoo Wildlife Alliance

The Pacific pocket mouse, *Perognathus longimembris pacific*, is a federally listed endangered animal species. It is endemic to coastal southwest California, and it is a member of the Heteromyidae family. This mouse is a nocturnal granivore (feeding on seeds) ranging in size from 4.3 to 5.2 inches from nose to tip of the tail.

This mouse lives on fine-grain, sandy substrate and historically inhabited coastal dunes, river alluvium, and sage scrub habitats growing on marine terraces within approximately 2.5 miles of the ocean. The breeding season generally peaks in spring but varies with temperatures, food supply, and plant growth. The breeding season is in the months of April through July in which most females typically produce one litter per year, about two to eight pups.

The pocket mouse feeds primarily on seeds, grasses, forbs, green vegetation in spring, and sometimes on insects. It lives about three to five years, but the lifespan of this mouse is sporadic because of its vulnerability in its

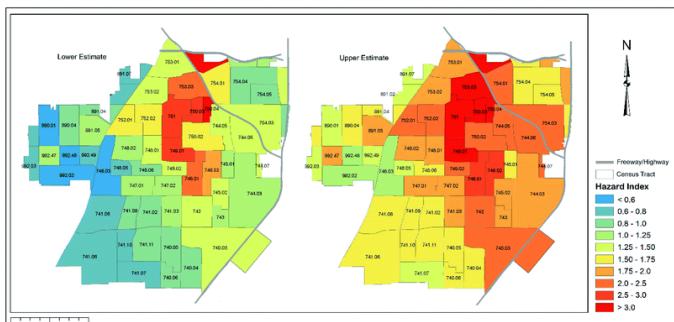


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these areas, unable to afford homes in areas that are safer, or unable to commute to their jobs in the industrial centers due to lack of transportation opportunities (their own or mass transit). This puts them at increased health and safety risk, as a result of their place of residence.

This issue is also present at the local level in Orange County. While Environmental Justice is relevant throughout the county, Santa Ana has proven an essential area for the environmental justice movement. A study conducted by UC Irvine and Orange County Environmental Justice, a 501 c 4 multicultural, multi-ethnic environmental justice organization, found that the soil in some of Santa Ana's low-income, predominantly Latino neighborhoods contain levels of lead potentially hazardous to human health. As seen in the graphic below, On the lower estimate, lead levels are highly hazardous for about 8 census tracts of people, but the higher estimate reveals more, showing a highly hazardous concentration for about half of the communities in Santa Ana. This lead is largely from the paint used on older homes prior to the ban of leaded paint. Especially with the Covid 19 pandemic, with families being forced to spend increased time at home, the health risk is increased for these families and, particularly, their children. The response to these findings is a more detailed investigation into the situation, with more testing of soil samples and the beginnings of building a movement for lead-free Santa Ana. ([More Information](#))



Maps of the high and low projections of lead hazard levels in Santa Ana, according to census tracts. Photo Courtesy by the Royal Society of Chemistry

This issue is far-reaching and may seem daunting to approach, but there are steps being taken to further the movement. In our own backyard, we have organizations such as [Orange County Environmental Justice](#) and [California Environmental Justice Alliance](#), as well as a number of other organizations, working on the environmental justice movement by advancing the environmental justice agenda and mobilizing and empowering marginalized groups. They focus on things like grassroots organizing and advocating for changes in environmental policy. In fighting environmental injustice it is essential that we not just look at mitigating the issues, but at creating legislation that will help to solve and prevent further problems. It is essential that we get minorities into the decision-making arena regarding environmental justice and use our political power

habitat.



Pacific pocket mouse foraging for food.
Photo by Cheryl S Brehme | USGS

This species was believed to be extinct for nearly 20 years until it was rediscovered in 1993. It was immediately placed on the emergency listings by the U.S. Fish and Wildlife Service and received full protection status in 1994. In September 1997, the U.S. Fish and Wildlife Service published a recovery plan for the Pacific pocket mouse to downlist its status to threatened by the year 2023. According to Iwanowicz et. al., 2016, Dana Point Headlands is the only site located in OC where the Pacific Pocket Mouse can only be found.



Current Range of Pacific Pocket Mouse in Orange County, CA. Photo Courtesy by Amy G Vandergast

The principal threats to the species and the cause of its present reduced state are habitat destruction, degradation, and fragmentation. These threats are due to different kinds of area development such as urban, agricultural, residential, and recreational. Other threats include ground disturbances or vegetation removal from grading, ripping, or off-road driving.

There are many other native rodent species that live in Orange County depending on their nature and habitat preference. However, due to the challenges and threats to their natural habitats, the native rodent population is at risk. Human encroachment, construction, water diversion and damming, invasive rodent species, and wildfires have immensely affected the natural habitats of rodents. As rodents not only balance the natural ecosystem but they also support agriculture to a great extent, so we all need to protect them. You have already taken initiative by knowing about our little neighbors by visiting the OC Habitats website and blog and learning about native rodents of Orange County. To get involved in habitat conservation for these species and more, you can volunteer at a variety of local nonprofits such as OC Habitats, OC Coastkeeper, Surfrider Foundation, Crystal Cove Conservancy, Laguna Ocean Foundation and more. You can support your local environment by contacting your local, regional, state and federal government officials about ensuring protection for native rodents and their habitats.



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as voters to work towards a more equitable environmental movement.

You can get involved by writing to your local congress people and legislators and volunteering with environmental justice organizations like those listed above. You can learn more about the movement generally on the [EPA's website](#), about local efforts on the [Orange County Environmental Justice website](#), and check out the [OCH Coffee and Conservation presentation](#) covering Environmental Justice by Sanjay Das.

Dangers of Microplastics

By Kevin Bollman

Plastic debris comes in many different shapes and sizes, but those that are less than five millimeters in length are generally defined as "microplastics." Microplastics come from a variety of sources, often from larger plastic debris that degrades into smaller and smaller pieces. Natural processes, including sunlight, cause fragmentation, which makes the material brittle and causes it to break. Microplastics can keep breaking up until they are dust particles that are difficult to measure and nearly impossible to separate from the environment.

Some microplastics have been made small intentionally, like industrial abrasives used in sandblasting and, despite a growing number of bans across the globe, microbeads in facial scrubs. All these tiny particles easily pass through water filtration systems and end up in lakes, rivers and oceans. While scientists are not unanimous on the degree of severity, there is general consensus that microplastics pose a potential threat to both humans and wildlife.

Microplastics and the environment



Cup of plastic found at a local beach.

There are wide-ranging concerns about the impacts of microplastics on our environment, in particular on marine wildlife. Sharks, whales, seals, sea turtles and polar bears are vulnerable to microplastic ingestion in the oceans throughout the world. These animals ingest large amounts of microplastic either directly swallowing

Volunteers of the Year



Cheryl Dyas joined OCH in spring of 2020 and brought with her more than 30 years accounting experience. She currently serves as the Director of Administrative Services and Treasurer for the City of Mission Viejo. She is a graduate of California State University Fullerton and a CPA. Her interest in protecting the environment and love of nature led her to volunteer at OCH. Her extensive knowledge of accounting principles, internal controls, financial reporting, grant management and budgeting will help our organization as we continue to grow. Her interests include camping and reading. Her favorite national park is Olympic National Park in Washington State and one of her favorite memories is scuba diving off the shores of Maui with a school of dolphins.



Michelle Lee joined OC Habitats in 2019 as a freshman from a local Irvine high school. She came wanting to gain experience and volunteer hours in the environmental and habitat conservation fields. She started off strong by helping write some blog articles and sharing her amazing drawings with us. She became interested in nature when she was a small child and was introduced to birds in her backyard. She watched Hooded Orioles grow up in a nest, Spotted Towhees hopping under low bushes, and California Quails trotting along. She couldn't get enough and wanted to learn more about birds, how everything going on in the world is affecting them, and how she could help them. Her artistic talent showed up as soon as she could hold a pencil and her parents enrolled her in art classes when she was in 4th grade and she has continued to take it ever since. She draws in several mediums, including pencil, paint and digital, and has been able to draw a variety of species for OC Habitats articles and presentations with fabulous detail and color. She has been working almost entirely remote for OCH since she began due to the pandemic and has increased her involvement with us in 2021 by participating in a couple of our Coffee & Conservation events, doing research and presentations, writing articles, and is currently developing a new series of artwork for OCH that will be used in our marketing materials. This young woman shows great potential and is taking a heavy academic load in high school setting her sights on ornithology and environmental law so that she can help the environment through legal



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from ocean water or indirectly by consuming prey containing microplastics in their body cavity. The harmful effects of microplastic ingestion is also an issue of concern for sea birds as half of the species are endangered and the toxic effect of plastic fragments has negative effects on their body which could cause alteration in feeding behavior, reproduction and mortality.

There is growing evidence that fish who are exposed to significant levels of microplastic have stunted growth and altered behavioral patterns, such as ignoring the smell of predators and choosing to eat plastics over their primary food source (zooplankton). Zooplankton, the cornerstone species of the marine food chain, are also heavily impacted by microplastic particles. When zooplankton feed off of these tiny particles, they pass them on to their natural predators, particularly salmon and other large fish species. Plastic comes as an easy snack for zooplankton which leads to an increase in the concentration of plastic particles species higher up on the food chain.

In addition to blocking the digestive tract in some species which leads to starvation, microplastics may also leach chemicals into the bloodstream that could potentially cross the blood-brain barrier and lead to neurological damage. There is evidence, at least in animals, that microplastics can cross the hardy membrane protecting the brain from many foreign bodies that get into the bloodstream. Additionally, mothers may be able to pass microplastics through the placenta to a developing fetus.

Microplastics and humans



It is difficult to completely assess the risks microplastics may pose for humans as each plastic is made up of a unique combination of chemicals. Plastics also come in different shapes, sizes and textures, all of which influence their level of toxicity.

For anyone living in the United States, plastic is nearly impossible to avoid: It lines soup cans, leaches out of storage containers, hides in household dust, and is found inside of toys, electronics, shampoo, cosmetics and countless other products. It's used to make thousands of single-use items, from grocery bags to forks to candy wrappers. But

protections and policies. We hope to have her for as long as we can as we see a blossoming advocate and steward of our precious environment.

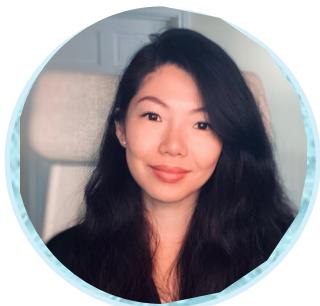
Volunteer of the Month

October 2021



Dominique Murillo joined OCH in spring of 2020 just as the pandemic was hitting the world. She began by participating in our Mother Earth Day 2020, cleaning up her local community with her family. From the beginning, it was clear that she is deeply passionate about the environment and shows her passion through her lifestyle, her actions and advocacy, and her spreading the positive message with her family and the world. She is currently working as one of our social media specialists, gaining more followers for OCH than ever before and helping our team engage the public. In addition, Dominique has helped us with grant writing and submission, habitat restoration and monitoring, and our local drives to support our wildlife rescue partners. All these efforts and work were done while also raising her three children with her husband, going to school, working, and showing the world that she can do it all. Her passion for this planet and the species that rely on it are an inspiration and we hope to hold on to Dominique and engage her in even more of our projects as we move forward.

November 2021



Keeley Rasich is a current student at Gonzaga University majoring in accounting and minoring in sustainable business. Although she spends a majority of her year in Spokane, Washington for school she still comes home for breaks during summer and winter and stays connected with our team through habitat monitoring even during her short breaks. Her interest in connecting with and preserving the environment led her to volunteer at OC Habitats starting in May of 2020 as a coastal dune habitat monitor. Her positive outlook for a brighter future reflects in her commitment to the environment and the world she



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what many people don't know is that we're doing more than just using plastic. Over time, microplastics make their way into our food and water as the tiny particles break off into our meals.

One [2019 research review published by the American Chemical Society](#) calculated that just by eating, drinking and breathing, Americans ingest at least 74,000 microplastic particles every year. [Another recent study](#) commissioned by the World Wildlife Fund and conducted by researchers at the University of Newcastle in Australia estimated that people consume about 5 grams of plastic a week.

It's possible that ingesting microplastic particles could further expose us to chemicals found in some plastics that are known to be harmful, such as bisphenol A and phthalates (pronounced tha-leit). Bisphenols are known to interfere with hormones, and there are studies linking bisphenol exposure to reduced fertility in men and women. Phthalates are also known to disrupt hormones, and prenatal exposure to phthalates can cause lower testosterone in male offspring. Styrene, another chemical found in plastic and some food packaging, has also been linked to a number of health issues, including nervous system problems, hearing loss and cancer. Microplastic particles can also accumulate polychlorinated biphenyls (PCBs), other chemicals that are linked to harmful health effects, including various cancers, a weakened immune system, reproductive problems and more.



A volunteer at a beach clean-up event emptying out the trash she found. Collecting trash either by yourself or with a group is another great way to eliminate its chances of harming our environment.

What can you do to reduce microplastics?

There is quite a bit that we can do to reduce microplastics. The most important step lies in changing the way we think and behave. Wherever you live, the first thing you should do is reduce your own use of single-use plastics. Single-use plastics include plastic bags, water bottles, straws, cups, utensils, dry cleaning bags, take-out containers, and any other plastic items that are used once and then discarded. Some alternatives to these single-use plastics include: stainless steel straws, reusable

loves. She is excited to further combine her interests in business practices and the environment as the year-round assistant bookkeeper at OC Habitats starting in summer of 2021. While at school, she is involved in the Gonzaga Environmental Organization (GEO) as a GEO Thrift Shop operations volunteer and student volunteer for Spokane-based environmental improvement endeavors. She hopes the combined efforts of the OC Habitats team will help the habitat stay healthy and vibrant for all to enjoy. We are proud to have someone like Keeley on our OCH Team and in our OCH Family.

Lin Tan joined our OC Habitats team in June of 2021 and has proven to be an ambitious, reliable, and friendly volunteer. During the lockdown, she has visited multiple national parks and has spent more time in nature, showing an interest in all of the exhibits that detailed the natural habitats. That interest has led her to OC Habitats and wanting to contribute to our mission in protecting and preserving our natural habitats. Lin has joined us to get some hands-on experience with marketing and further develop her communication skills in the hopes of gaining experience for her marketing and management career track. She has proven to be a big help for our marketing during the Protect & Preserve Giving Fundraiser, where she used her skills to develop campaign material for OCH. We look forward to seeing her skills grow and develop as she helps us prepare for our upcoming end of the year fundraisers. We are very grateful to have Lin on our team and are excited to continue working with her!

What's New

NEW STAFF MEMBER



Cristina Robinson received her Bachelor of Science in marine biology from California State University of Long Beach and protects marine life with research, education, and by advocating for plastic pollution prevention. She is the founder of

@PlasticMeNot, a website and social media presence dedicated to spreading awareness on marine debris, plastic alternatives, and zero-waste options. Cristina has been a whale-watching naturalist for Cabrillo Marine Aquarium's Whale Watch Program, a community scientist for the Aquarium of the Pacific's Southern California Sea Turtle Monitoring Project, is a pen pal for Letters to a Pre-Scientist, and is a NOAA affiliate for the Protected Resources Division focused on sea turtles and marine mammals. She previously provided environmental science education for OC Coastkeeper and Laguna Ocean Foundation, and just started Bren's Master of Environmental Science & Management program at UC Santa Barbara. Cristina hopes to help reduce whale entanglements off the West Coast and create better approaches to prevent plastic pollution through source reduction.



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ble glassware, and utensils made from bamboo. By investing in quality reusable products, you'll protect the environment and save yourself and your family money.

Lastly, when you do use single-use plastics that can be recycled, always be sure to recycle them. The United Nations estimates that just 9% of plastic is currently recycled worldwide. Recycling helps keep plastics out of the ocean and reduces the amount of new plastic in circulation. Looking for resources to learn how to recycle effectively when you are left with single-use items? Check out our presentation [here](#) for info on what can be recycled, how to recycle properly, and other tips and tricks to minimize your waste!

Supporting legislation aimed at plastic reduction is another effective way to tackle the problem. Many municipalities around the world have enacted bans on single use plastic bags, takeout containers, bottles, and most recently microbeads. On December 28, 2015, President Obama signed the Microbead-Free Waters Act of 2015, banning plastic microbeads in cosmetics and personal care products.

Real change can also be made by supporting stores and businesses that use eco-friendly products and practices. The effort to "go green" has been felt across industries, as companies are beginning to realize how their operations impact the environment. From using recycled or renewable resources to reducing energy consumption and waste, there seems to be a universal effort by businesses and consumers to protect our planet and do what we can to live a more sustainable lifestyle. The next time you are shopping, ask the store or business if they provide any eco-friendly alternatives to their plastic products.

There are many non-profit organizations working to reduce and eliminate ocean plastic pollution in a variety of different ways, including Plastic Pollution Coalition, Oceanic Society, 5 Gyres, and Algalita. OC Habitats encourages you to find an organization and support them through donations or volunteering your time as they rely on people like you to continue their important work. Remember: every contribution can make a big difference!

Celebrating the Holidays Sustainably

By Wendy Berube

Although the "Holiday Season" seems to start somewhere around August these days, we can all agree that by November, it is upon us. The Holidays are a time of joy, family & friends, celebration, stress, giving, and...waste. Many of us get so wrapped up in the excitement and excesses of the season that we forget about the impacts that our actions can have on the environment. So, as we turn our eyes to-

OCH COFFEE & CONVERSATION (C&C)

OC Habitats began hosting monthly live streams on Google Meet or Zoom during the pandemic in an effort to connect and engage with the public. These events are typically hosted Saturday morning where we go over many different topics regarding our organization, environmentalism, and sustainability. [Check out our previous live streams](#) and join our email list to know when the next live stream is scheduled!

HIKING PROGRAM



OCH currently has the goal of doing at least one hike per month at different locations. One of our hikes include a 2.5-mile MPA hike along Little Corona del Mar beach to learn about the habitat and the different species living therein. We are always developing and expanding our hiking program to include new nature hikes, such as hikes along the Santiago Oaks Regional Park Trail, Dripping Cave Trail, San Joaquin Marsh Hike, and more, where you can learn about the various species living in the area and how to leave no trace. If you're interested in joining us on our hikes, space is limited, so register through [EventBrite](#)!

END-OF-THE-YEAR FUNDRAISING

On November 30th, 2021, OC Habitats (OCH) joined the Giving Tuesday movement that shows the power of generosity around the world. During this event, OCH was able to raise \$1,1547 through your support and this amount was doubled by our general matching donors to \$3,094! In addition, OCH and Weaving Wild Tales are now partners! A portion of the proceeds from the children's book *If Dolphins have Thumbs* by Melissa Price will be shared with OC Habitats. To get your copy, [click here](#). Thank you everyone for supporting our educational programs with students, backing our restoration efforts, and protecting our habitats through our monitoring efforts!





OC
HABITATS™

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wards the chaos and magic of Thanksgiving, Christmas, Hanukkah, Kwanzaa, and the New Year, it is important for us to look for ways that we can celebrate both the holidays and the Earth. Many of us embrace family traditions during this time, but we must recognize that some of our traditions have taken a toll on our environment. As Christmas has become more commercialized, its impacts on the planet have also increased. In 2018, Americans discarded about 95 billion pounds of edible food; almost 27% of the US food supply ([CalRecycle](#)), and this waste increases dramatically during the holiday season. The EPA estimates that an increase of 25 million tons of garbage is generated during the weeks between Thanksgiving and the New Year ([EPA](#), [Stanford](#)). That is about 1 million extra tons per week entering landfills ([Stanford](#)).

Those of us who care about preserving or improving the state of our planet have many options for reducing both our carbon footprint and our generation of waste during the holidays while enjoying all of the joy and festivities. While some of the suggestions below deal specifically with Christmas (such as trees), most of them are applicable to celebrations in any faith tradition. There are 3 areas where our actions can have the most impact: food, décor, and gifting.

Food

Food brings people together. It is the centerpiece of many holiday traditions and a celebration of abundance. But in our society of plenty, a celebration of abundance can turn into a display of wastefulness. Additionally, our food system generates a lot of carbon dioxide emissions, from its growth and transport to its processing and packaging. In order to minimize both waste and our carbon footprint, consider these suggestions for your holiday entertaining:

- Buy local and seasonal. Small local farms are more likely to practice sustainable farming practices, especially if they are growing seasonal produce. Staying close to home also eliminates transportation costs, and supports your local community.



Local Farm Stand in San Juan Capistrano.
Photo Courtesy by The Ecology Center

INTERN

Sierra Dey (Saddleback) has wrapped up her internship. Thank you for all of your hard work!

ONGOING RESTORATION PROJECTS

Restoration at the Huntington Beach Wetlands Conservancy is held on every third Saturday of the month. At the Upper Newport Back Bay, restoration is held on every second Saturday of the month with a monthly Wednesday monitoring of the riparian and salt marsh habitat. OCH is looking for committed restoration volunteers. Interested? Contact volunteer@ochabitats.org.



Upcoming Events & Opportunities

January 2022

- January 1st: New Year's Day
- January 8th, 8 - 11 AM: UNB Restoration
- January 15th, 9 - 12 PM: HBWC Restoration
- January 15th, 10 - 10:30 AM: Gizmogo Partner Spotlight
- January 22nd, 8 - 10:30 AM: Peter's Canyon Nature Hike
- January 22nd, 10 - 11 AM: C&C - Sand Movement
- January 26th, 8 - 10 AM: UNB Monitoring
- January 29th, 9 - 11 AM: Beach Clean-Up

February 2022

- February 5th, 7:30 - 11:30 AM: Bolsa Chica Nature Hike
- February 12th, 8 - 11 AM: UNB Restoration
- February 19th, 9 - 12 PM: HBWC Restoration
- February 23rd, 8 - 10 AM: UNB Monitoring
- February 26th, 10 - 11 AM: C&C - Algae Bloom

March 2022

- March 5th, 8 - 10:30 AM: Santiago Oaks Nature Hike
- March 12th, 8 - 11 AM: UNB Restoration
- March 13th: Daylight Saving Time Starts
- March 19th, 9 - 12 PM: HBWC Restoration
- March 23rd, 8 - 10 AM: UNB Monitoring
- Coffee & Conservation: TBD

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- Look for organic and sustainably farmed options. While there are many similarities between these two designations, they are not always the same. Organic means grown without inorganic pesticides and petroleum-based fertilizers, but regulations on organic labeling have been relaxed over the years, so the label alone isn't always a guarantee that the food is responsibly sourced. Sustainable farming focuses on maintaining healthy soils, preventing erosion, and maintaining natural resources ([Escoffier Culinary Institute](#)). Both are important in reducing pollution from runoff, eliminating harmful chemicals from food, and preserving soil fertility.
- Reduce or eliminate meat consumption, or buy humanely-raised meat. There is no question about it; meat production is bad for the planet. Meat production uses many times more water, fossil fuels, land area, and other resources than plants. It has a massive carbon footprint. Replacing some or all of your holiday meat with plant-based versions is the best option. There are numerous meat alternatives available to replace your Thanksgiving turkey, such as premade meatless "roasts" and also thousands of recipes for meatless main dishes to make at home.



Vegan Thanksgiving Roasts for the Holidays.
Photo Courtesy by Vegan Yack Attack

If you absolutely must have meat at the table, opt for humanely raised meats. These can be hard to find, but the effort is worth it. Not only are you supporting humane animal practices, but the meat itself is healthier because there are no hormones or antibiotics used. The animals are fed a diet that resembles what they would eat in the wild, and allowed to engage in species-appropriate behaviors such as grazing. This makes a healthier animal, which makes healthier meat. Look for a certification like "Animal Welfare Approved," "Global Animal Partnership Step 5+", "American Grassfed", or "Certified Humane Raised and Handled". For more on this, check out Greener Choices (<https://www.greenerchoices.org/humanely-raised/>).

- Don't throw away scraps or leftovers. If you know you can't eat all of your leftovers, plan ahead to share them with guests. You can ask guests to bring a take-home container, or wash

*Please check our website or your email for updated event information.

For new and upcoming events, join our mailing list.

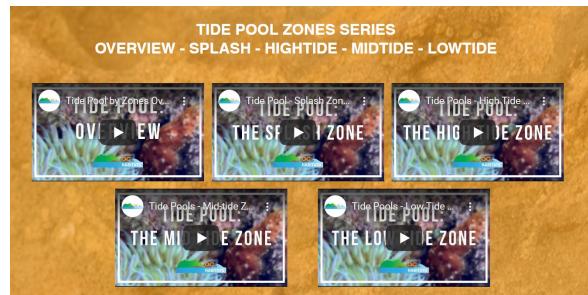
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OCH SPOTLIGHT INTERVIEWS 2021



We will be continuing to post spotlight interviews with our interns, volunteers, and staff. These interviews highlight the variety of backgrounds, cultures, and experiences from our volunteers, and we embrace them all. [Check out our videos](#) to see how the OCH culture is diverse and welcoming.

OCH HABITAT VIDEO SERIES



We have several habitat video series projects in the works that discusses the specific habitats and the species living therein. We are hoping for the publication of several of them by the end of 2021. There is also an in-depth look into the tide pool habitat that explores the successes and struggles that various tide pool animals experience in the microhabitats of each zonation. Keep your eyes open for a notification about these videos about our habitats of Orange County.

THE NATIVE HABITATS OF ORANGE COUNTY

ORANGE COUNTY HABITATS OVERVIEW

COASTAL DUNES

TIDE POOLS

WETLANDS

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any plastic or glass containers that your ingredients come in (think sour cream tubs or pasta sauce jars) and send them home with your guests. Any scraps or non-edible leftovers should be composted. In parts of Orange County, we have green waste bins that will take food waste to the municipal compost facility. For the gardeners out there, start your own compost pile or worm bin to elevate your soil and boost crop yield.



A china set is a great way to set the mood for the holidays, and a way to pass down the memories from generation to generation. Photo Courtesy by Jessica W.

may want to invest in a set of china. But don't go buy it at the department store! Consignment stores carry an amazing selection of beautiful vintage sets of china and silverware at a fraction of the cost.

I hope these ideas have given you some inspiration to make your holiday a little greener this year. Choose one or all of these suggestions to try this year and see how it makes you feel to know that you are contributing to a healthier and more sustainable world.

- Say "NO" to single-use plastics and paper goods. If you are entertaining lots of guests and don't have the dinner ware for it, you have a couple of options. First, you could ask your guests to bring their own plate, silverware, and even cloth napkin (they can bring it in a reusable bag with their leftover container). This makes for a fun mashup of colors and designs, and might spark some interesting conversations. If you host every year, or just entertain a lot, you



OCH is looking for people who want to share their talents and time to improve their local environment and habitats. We have many opportunities to get involved and some are listed below.

Volunteer:

- Become a Habitat Monitor
- Join our Habitat Education Team
- Help with Administrative Tasks
- Help with Outreach and Marketing
- Become a Nature Hike Guide
- Work on OCH's Social Media Outreach
- Help with ongoing Restoration Projects
- Work with our Grant Writing Team to secure funding for our organization, programs, and projects.

Internships:

- College Level Students earn credit through CSUF, UCI, Saddleback, CSULB, and more.
- Gain experience in the conservation field, a grassroots nonprofit, business administration, public speaking, education, and more.
- Become a film or art intern for OCH.

We look forward to hearing from you!

[**Join Our Crew**](#)

Volunteers of the Year

2017



Tom Gee

2018



Bianca Borja

2019



**Crystal Ryan &
Trevor Stocking**

2020



Ross Griswold

2021



**Cheryl Dyas &
Michelle Lee**