SUSTAINABLE LEADERS ACTION July 2021 VOLUME 2 **ISSUE 5**





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An overlooked, yet critical organism

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SLIA's July action of the month is line drying your clothes! By hanging your clothes to dry after the wash instead of using the dryer to get the job done, you can help *save lots of energy* and money in your household!

Most dryers are either electric or natural gas, however, depending on which appliance you have in your home, the amount of energy used may vary. Electric dryers range from about 2,000 to 6,000 watts, translating to about 2 to 6 kilowatt-hours of electricity after each load. With a natural gas appliance, 22,000 BTU are used per hour, but it turns heat on and off during each cycle. Using a natural gas dryer may be more sustainable as it can help control heat settings when used, but both require lots of heat and energy in order to run. If you want to avoid the trouble altogether, there are many alternatives to drying your clothes without the hassle of spending lots of money on your electric bill each month!

Air drying your laundry is an easy, simple action you would not have to think twice about integrating into your everyday life! Whether you are hanging your wet clothes on a clothing rack, clothesline, or even a rail in your house, your clothes will dry while you save a couple of bucks along the way! On average, people do their laundry at least once a week. By hanging laundry indoors or outside on hot summer days, that's at least <u>\$5 of</u> <u>money saved</u> a month, and if you continue over 6 months, you will have at least \$30 extra dollars in your pocket! In addition to reducing the amount of energy and cost used in your household, there are also environmental benefits that come along with this action. Most of the energy used to dry comes from the combustion of fossil fuels and nuclear power plants, which contributes to numerous environmental issues. Especially in fire-prone areas, relying on an electric or gas dryer during the hot summer months is seen as a serious fire hazard. In the US alone, there have been more than 2,900 residential fires resulting in approximately \$35 million in property losses annually just by using a dryer. Take into account that a typical American demands about 400 loads of laundry every year, which is responsible for 1,760 pounds of carbon dioxide emissions. Excessive carbon emissions can lead to the loss of the natural habitats for plants and animals that we depend upon for our survival. Air drying clothes may be a small action, but it can go a long way in protecting not only your community but the environment as well!

You may not think this action can be a lifesaver, but there are many more *benefits of line drying* than you would think! Choosing to implement July's Action of the Month, not only for this month but beyond, can reduce the cost and energy used monthly as well as protect your environment by keeping even just 4 pounds of carbon out of the atmosphere from each load of laundry. No matter how big or small your actions are for this month, choosing to make a sustainable change in your lifestyle can not only keep your clothes looking fresh but also keep the world safe, one load at a time!



THE SECRET BENEFITS OF SEAVEED by Alison Chiu

Seaweed is something extremely versatile that is often overlooked. Not only does it provide high nutritional value, but it is also very crucial to the environment. Seaweed actually refers to an enormous group of different algae and marine plants, so it doesn't have a specific definition. It can be <u>microscopic</u> or it can reach heights of over <u>100</u> feet!

Seaweed is edible whether it's eaten raw or cooked in a dish. It's a great source of iodine, which is important to thyroid hormones (which regulate metabolism). Our bodies don't make iodine, so it's important that each person has the proper amount in their diet. Additionally, it helps heart health by reducing blood pressure, and it stabilizes blood sugar levels, reducing one's risk of Type 2 Diabetes. Most seaweeds include different nutrients including: Vitamin A, Vitamin B1, Vitamin B2, Vitamin C, Vitamin E, Vitamin K, Calcium, Folate, Potassium, Iron, Manganese, and <u>Copper.</u>

Even though seaweed has multiple different nutritional benefits, its true value lies in the role it plays in marine ecosystems. Not only is it a source of nutrition and energy for animals, it also protects marine organisms. Nowadays, there are a lot of greenhouse gases in the water, specifically carbon dioxide. The ocean is the world's largest carbon sink (meaning that it is the largest natural environment that absorbs carbon dioxide from the atmosphere). At the surface level, the ocean is doing the world a big favor by absorbing the carbon dioxide. However, once carbon dioxide interacts with the seawater, it forms something called carbonic acid, which causes ocean acidification. Ocean acidification reduces the amount of carbonate in the water, which many marine organisms, including coral and some plankton, use to build their shells.

Without the necessary levels of carbonate, their shells may start to dissolve, and because many of these organisms are crucial to their ecosystem, ocean acidification can have devastating effects on the marine ecosystem. So how does seaweed play into this? Seaweed actually absorbs about 173 million metric tons of carbon dioxide from the water! It also sucks up gases like nitrogen and phosphorus. Nitrogen is the biggest pollutant in the world that is affecting oceans, and too much phosphorus in the water can cause eutrophication (decreased levels of dissolved oxygen). Even though seaweed might not fix these problems, it absolutely limits, decreases, and prevents the negative effects of them.





Given these points, seaweed clearly has many different benefits, and it's a shame that many people don't know about it. From being nutritious and delicious to supporting the marine ecosystem in the ocean, seaweed is clearly something that can use more recognition. It might even have benefits we haven't discovered yet.

THE GREEN NEW DEAL EXPLAINED

by Abigail Stofer, art by Kyle Suen

You've probably heard the term "Green New Deal" being thrown around a lot the past few years, but what does it mean? Where did it come from? And what does it entail?

The Green New Deal is a climate proposal introduced in early 2019 by Rep. Alexandria Ocasio-Cortez (NY-14) and Sen. Ed Markey (D-MA). It calls on the federal government to reduce greenhouse gas emissions, wean the United States off fossil fuels, create high paying jobs in clean energy industries, and help solve economic inequality and racial injustice. The <u>14</u> <u>page resolution</u> made quite the splash on Capitol Hill and has become a polarizing topic, with progressives in Congress pushing for its passing and the GOP remaining staunchly against it The phrase "Green New Deal" has actually <u>been around longer than you might</u> <u>have expected</u>. Variations of the proposal originated in the early 2000s, but after the 2018 midterms, a youth activist group called the Sunrise Movement began to popularize the term. During one of their protests demanding action on climate change outside the office of soon-to-be-speaker of the House, Nancy Pelosi, Rep. Ocasio-Cortez joined in and lent her support to their proposal, which ultimately became the resolution that we know today.

The legislation, though not very specific on how the outlined goals will be reached, is a broad framework for what the US needs to follow in order to achieve net zero emissions by 2050 through a ten year mobilization and sets the country up to be a global leader in climate action. It is also a non-binding resolution, meaning that if it is passed, it wouldn't progress into law and create the needed programs itself but would instead express Congress' approval of the content.

The resolution opens by describing the effects of climate change and why the country should take action. Included in this section, it is mentioned that the United States has historically been responsible for a disproportionate amount of carbon emissions (about 20% of global emissions up through 2014), and since the country has a high technological capacity, it is in the perfect position to take an international leadership role and lead the charge to combat climate change. To further incentivize action, the US could also lose billions of dollars by the end of the century due to climate change if nothing is done. Climate change is also a direct threat to national security as it impacts the economic, environmental, and social stability of countries and communities and acts as a threat multiplier.

Next in the resolution are the <u>goals and projects</u> that would be achieved through the ten-year mobilization, including building or upgrading power grids to be energy-efficient; providing affordable access to electricity; restoring and protecting threatened, endangered, and fragile ecosystems through science-based projects that enhance biodiversity and support climate resistance; and promoting international exchange of technology, funding, and expertise. In the agricultural sector, the Green New Deal suggests working with farmers and ranchers to remove pollution and greenhouse gases from the sector as much as technologically possible by supporting family farming, investing in sustainable farming and land use practices, and building a more sustainable food system with universal access to healthy food.

Additionally, it talks about sourcing 100% of the country's energy from renewable and zero-emission powers, investing in electric vehicles and high speed rails, and providing job training and new economic development, especially to communities that rely on fossil fuel industry jobs. The resolution stresses the idea that all solutions would be developed through transparent and inclusive communication with frontline and vulnerable communities and workers to mobilize at the local level, ensuring a fair and just transition for all. It also promises that consent would be obtained from indigenous peoples for all decisions that affect them and their traditional territories.

The Green New Deal faces an extremely difficult path to passing, as Republicans tend to cast it as a socialist takeover and claim that the plan would saddle taxpayers with debt and displace millions from their jobs. A large portion of criticism regarding this proposal is the price tag. While an exact price hasn't been nailed down, it is likely to cost trillions of dollars. Ocasio-Cortez has acknowledged that it will be highly expensive, but she says that the plan will pay for itself through economic growth. While complete climate change denial in Congress is rare nowadays, the GOP would prefer to tackle climate change through <u>less drastic measures</u> such as technological innovation and natural solutions like planting trees. The plan is also concerning for moderate Democrats who represent swing counties that may be against the plan.

After taking a back burner for a little bit, the resolution was <u>formally reintroduced in</u> <u>mid-March</u>, and many additional bills have been introduced that would go along with the deal. Ocasio-Cortez and Rep. Cori Bush (MO-01) have introduced a new resolution to authorize up to \$1 trillion for cities, tribes, and territories to fund their own localized versions of the Green New Deal. Ocasio-Cortez and Markey have also suggested creating a civilian conservation corps on climate change projects that would provide jobs to a diverse group of 1.5 million Americans over five years.

While the Green New Deal certainly has its drawbacks, it is currently the most progressive and drastic environmental legislation on the table. It truly tries to reach every aspect of climate change and communicate with those whom it affects the most. You can read the resolution for yourself here: <u>H. RES. 109</u>

CL * MATE CAREERS CHAT

By Lorin Iglesias | Images from CCC April 29, 2021 Youtube Recording

SLIA held their most recent Climate Careers Chat at the end of April and featured naturalists from the East Bay Regional Park District, Ashley Adams and David Cohen. The panelists imparted the story of their journey in interpretation, the vital role of exposing young people to nature, and a powerful reminder of our responsibility to our planet.

Growing up with parents who often took her out to go hiking or fishing, it was no surprise that Ashley was enticed with the idea of working with nature. "I started hiking before I could walk." she said. Even back in high school, Ashley didn't hesitate to show her interest in the environment. She was the President of the Earth Club at San Leandro High and raised funds to put recycling bins all over the school quad. Aside from being an environmentalist, Ashley also revealed her fondness of doing theater.

With her two opposite interests, Ashley never thought that there would be a profession that incorporates both. However, after taking a walk in Lake Chabot Regional Park, Ashley was presented with a path that led her to discover a profession fit for her. There, she saw a hiring advertisement for an Interpretive Student Aide. At first, Ashley hesitated to apply because she thought that it had something to do with speaking another language but later learned that the job meant getting to work at visitor centers and interacting with the public about the environment.

ASHLEY ADAMS

Having said that, young Ashley applied for the job and during her senior year, she got to work at the Crab Cove Visitor Center in Alameda. There, Ashley got to teach people about the many wonders of the rocky shores, show them Bat Rays at high tide and other fascinating things. Her experience at Crab Cove prompted Ashley to realize that she wanted interpretation to be her career. To be able to stand in front of people, much like theater, to teach them about wonderful things they did not know about nature and to be an advocate of the environment. After that, Ashley attended Humboldt State University where she majored in Geology. "It was kind of like majoring in camping." she stated, reminiscing the times when she and her fellow students went out in the field almost every weekend, creating maps and studying the geology of California. Rather than becoming a field geologist like the rest of her class, Ashley knew that she wanted to be around people to show and talk to them



about the beautiful geology around us. Recollecting from her time at Crab Cove, Ashley realized that not many people are aware of all the intriguing geology around the Bay Area. For instance, it wasn't common knowledge that Mount Diablo grows everyday or that volcanoes created Oakland hills. She said, "That's what I was doing. I was interpreting nature and the world around us, things that people see everyday but sometimes take for granted."

After graduation, Ashley took multiple jobs around the Bay Area. A few years later, Ashley finally got to work with the East Bay Regional Park District and not only was she able to express her fondness of nature through being an interpreter, Ashley was also able to work with a company called Timelooper, and they developed a VR experience where you can see how the Bay Area would have looked when wildflowers and various animals blanketed the area. The said virtual reality was also used to interpret climate like witnessing the sea level rise. Ashley said that, "When people experience this through virtual reality and actually watch the water rise around their feet, that's a powerful thing." Upon creating the VR experiences, Ashley got recognized as the Outstanding New Interpreter by the National Association for Interpretation in 2019.



Ashley shows off the VR tech.

Prior to the virtual field trips due to the pandemic, the usual tasks of interpreters consist of leading nature hikes and going underground, just like what she does in the Black Diamond Mines Regional Preserve to talk about the coal industry here in the Bay Area. Ashley also recalled conducting kayak and bike programs to see nature in a different approach.

Ashley depicts interpretation as a meaningful storytelling that can easily be done. "If you want to make a difference, [or] make people feel something to really care about the environment then maybe you should be an interpreter." she stated. Ashley also mentioned that bringing people down to the mines has taught her to be careful of what she narrates

to the public. "The danger of a single story." as she calls it. They usually speak about the miners who worked there and that they were mostly Welsh but they weren't the only ones who worked there. Recently, Chinese coins were discovered in the mines, meaning that Chinese people have worked in the mines as well. Ashley's



job is to relay these stories, which is important especially in our world today because, "these places cannot speak for themselves [...] but most importantly, it's a call to action to get people to feel something and maybe change their habits to be a better citizen in this place we all call home."



Much like Ashley, David's parents often took him out for outdoor adventures as a child, though young David wasn't exactly thrilled to be out in nature like her. David reflects on how being around nature at such a young age helped him outgrow his original distaste and made him fall in love with nature. **He believes that "exposing young people to nature can have a really big impact on their later lives and beliefs."** Aside from early exposure, David was fortunate enough to receive outdoor education both from his parents and from outdoor education programs at the schools that he attended. He also took electives in high school that revolved around environmental

studies, and community service that had put great emphasis on how it should be a part of learning and not just for the incentives that come with it. Although an environmental studies graduate, David stressed that it isn't necessary to have a degree in environmental studies to pursue the field he and Ashley are in albeit it has been helpful in his career. During the summer in college, David started working for a summer program called Aim High. For seven summers, David guided nature hikes, and habitat restoration which aims to make students feel more invested in the place knowing that they had actually put work and effort into it. David commented how, with habitat restoration, he was "helping them become stewards of their national parks and realize that these are places that belong to them."

After college, David landed a job with the YMCA Point Bonita which entailed taking kids on hikes and teaching them about the environment through different games and activities. Alongside his job at Point Bonita, he also worked at the Aquarium of the Bay in Pier 39 where he was often giving presentations, leading field trips and other interesting activities such as talking about the bay while sailing on a hybrid ferry. With all that being



said, David spoke briefly about how the interpretation field often meant taking on numerous part-time jobs with many working days and few days off but nevertheless he loves his career. Later on, David joined the California Academy of Sciences where he worked full-time for four years. He mentioned that the Academy is actually a scientific



research institution, so part of his job was translating to people the science going on behind the scenes. After those four years, David then joined the Ardenwood Historic Farm which is part of the East Bay Regional Park District. David spoke

about how in Ardenwood, there are many possibilities such as speaking about the history of agriculture which is connected to the climate and happenings in our world today.

After sharing about himself, David discussed his personal pros and cons when it comes to working in the interpretive field. He expressed how privileged he is to have a job that he enjoys doing every day. When asked about the most rewarding aspect of his profession during the Q&A, he responded, "When you create something and then you get to see it out there with people and you see your co-workers doing it too, presenting something you created is super rewarding." In addition to that, David appreciates that through his job he can communicate about climate change and share solutions regarding the matter to the public. David also mentioned that in terms of climate change, a question always asked is how can we talk to people about difficult, daunting things that can be too overwhelming for an individual? **That being said**, **David provided us with some of the best resources to communicate with others concerning climate change like: the <u>National Network</u> <u>for Ocean and Climate Change Interpretation</u> and <u>Framing for Climate</u> <u>Interpreters</u>.**

For David's con list, most of it were the opposite of his pros. For instance, although he adores talking to the public, David admits that sometimes it was like preaching to a choir because the people already know most of the information in his presentation. David also struggles with the fact that as he advances in his career, he gets farther away from the aspect of his job that he loves the most, which is interacting with people and making an impact. Furthermore, David shared that even though there are environmental interpretive jobs that pay well, a lot of companies and organizations in this industry are non-profit which means they are usually under-funded and would often face budget issues. This is quite a predicament because as David remarked, "we need to draw more young people in, like you, to do this work." The work of environmental advocacy, of being the bridge that connects people and nature. Through his craft, David reminds us to not forget about the environmental issues at hand and that this place we call home is our responsibility and as its caretakers, how we leave it is our legacy.

TO VIEW THE ENTIRE <u>CLIMATE CAREERS</u> <u>CHAT</u>, GO TO SUSTAINABLE CONTRA COSTA'S <u>YOUTUBE PAGE!</u>

VEGAN TURTLE-SHAPED MATCHA COOKIES by Brooke Abess

These adorable cookies are so much fun to make and taste delicious! The nuttiness from the tahini pairs well with the matcha, which is perfectly combined with the maple syrup to create a great, balanced flavor palette. When getting your ingredients, keep in mind that some tahini can have a bitter taste, so make sure you do some research before choosing one to buy! You can also use different nut or seed butters in place of tahini, but it will affect the final flavor and color of the cookies. If you don't have or can't find oat flour, you can simply blend rolled oats to create the flour. You'll love these little turtle cookies, and the best part is that they're vegan, so no turtles (or other animals) are harmed in the process!

> From: <u>https://veggiekinsblog.com/2019/07/23/tahini-</u> <u>turtle-cookies/</u>

INGREDIENTS:

½ cup tahini (should be smooth and runny)
½ cup maple syrup
1 teaspoon vanilla extract
½ cup oat flour (more as needed)
¼ cup almond flour
1 teaspoon baking powder
1-2 teaspoons matcha powder (to taste --I use culinary grade matcha, but any kind should work!)





DIRECTIONS:

Preheat your oven to 350° F and line a baking sheet with a nonstick mat or parchment paper.



In a large bowl, mix the tahini, maple syrup, and vanilla extract until well combined.

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Add in the oat flour, almond flour, and baking powder, and mix with a spatula until dough forms. The dough should be shapeable, so if it's too wet then add more oat flour.

> Set aside about one third of the dough (this will be the head, arms/legs, and tail), and sift the matcha powder into the remaining two thirds of dough. It is important to sift the matcha powder because it will form clumps if not sifted! Mix again with a spatula until thoroughly combined.

Roll about 1 tablespoon of the matcha dough into a ball and press to flatten. Use the back of a fork to create the cross hatched pattern for the shell.



Roll small balls of the plain dough to create the head, four arms/legs, and tail. Gently press the parts together to assemble the turtles.



Use a chopstick or other tool to poke eyes into the head.

Repeat steps 5-7 until all the dough is gone. Finally, bake for 8-10 minutes. Keep in mind that the cookies will firm up a bit more after baking.



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