The Trail
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Rutgers University – Department of Human Ecology
Welcome back to another year on The Trail. We are thrilled to bring you along for Volume 12 so you can get to know our new writers, editors, and designers. Look out for returning members and read about a mix of summer experiences, student perspectives, and global environmental stories in this issue. Thank you for your ongoing support — we love to hear feedback from our readers at epibtrail@gmail.com.

~ Micah and Marissa
The Adirondack Park, located in upstate New York, is comprised of over 6 million acres of public and private land. Known for its unique topographic features, the Adirondack Park is home to over 100 mountain peaks spanning more than 160 miles. The Adirondack region is bigger than Yellowstone National Park, the Everglades, Glacier National Park, and the Grand Canyon combined. The highest peaks within the Adirondack Park are known as the 46 Adirondack High Peaks, and hikers who climb all of the High Peaks are known as 46ers.

The Adirondack region provides the ideal environment for people to connect with nature and enjoy outdoor recreational activities, as the park has over 2,000 miles of hiking trails, 3,000 lakes and ponds, more than 10 ski areas, and countless scenic roads and views.

After the official establishment of the Adirondack State Park in 1892, Article XIV of the New York State Constitution deemed approximately 2.6 million acres within the Adirondack Park as “Forever Wild” in 1895. This amendment has prohibited industrialization and development of the protected land. Originally aimed at limiting lumbering and natural resource exploitation within the Adirondacks, this Article of the New York State Constitution represents the evolving, ever-present dedication to wildlife conservation exhibited by residents and visitors of the Adirondack Park.

One such example of modern wildlife conservation efforts in the Adirondack Park is the Adirondack Wildlife Refuge & Rehabilitation Center in Wilmington, New York. The Adirondack Wildlife Refuge is a non-profit organization that specializes in the rehabilitation of sick and injured animals, ranging from hawks to black bears. Volunteers and employees at the rehabilitation center consult with veterinarians to care for animals and work towards returning healthy
animals to the wild. The center is also home to animals that are unable to survive independently in the wild, which allows visitors to learn from these species in captivity.

Steve and Wendy Hall established the Adirondack Wildlife Refuge & Rehabilitation Center as a non-profit about four years ago, after working in wildlife rehabilitation for over thirty-five years. The rehabilitation center is located on fifty acres of land comprised of hiking trails, fishing trails, meadows, forests, and wildlife enclosures.

The animals currently housed at the Adirondack Wildlife Refuge include black bears, wolves, coyotes, foxes, owls, hawks, ravens, merlins, and more. Owner Steve Hall holds daily discussion sessions explaining the important roles of bears and wolves in ecosystems. These discussions frequently highlight environmental concerns as well, which can often be linked to climate change. Co-owner Wendy Hall also holds educational presentations with a focus on modern environmental concerns, including the dangers of the fur industry and its impacts on various ecosystems and their inhabitants.

The Adirondack Wildlife Refuge & Rehabilitation Center provides a safe home for injured and disabled wild animals with dedicated members who work to restore balance and diversity within the Adirondacks, all while educating the park’s residents and visitors. As environmental awareness becomes increasingly necessary, it is crucial to support and engage in efforts for wildlife conservation.

WORKS CITED


The Amazon rainforest plays a major role in regulating our global temperatures, as it absorbs about 5% of all global carbon emissions. This vast rainforest is often referred to as the “lungs of planet Earth.” With such a significant role in atmospheric regulation, it is imperative that we continue to nurture this land as well as the ecosystems and people it inhabits. More than 70,000 fires have emerged in Brazil’s Amazon rainforest since January and continue to burn to this day.

A crisis this catastrophic demands immediate government attention and action, yet the Amazon had been ablaze for nearly three weeks in August before the story received any mainstream media coverage. It was not until images of smoke darkening the skies over Brazilian cities surfaced that the fires in the Amazon gained global attention and sparked international outcry. When the Notre Dame Cathedral was on fire in April of 2019, international fundraising drew in more than $1 billion USD for its reconstruction. As one of the most famous Gothic cathedrals of the Middle Ages, the Notre Dame Cathedral is unequivocally a monumental building with historic roots. However, when comparing the media coverage and public outcry from Notre Dame to that of the Amazon fires, it is disheartening to see how little coverage the Amazon fires received and how little of a priority world leaders have made to salvage one of the most important ecosystems on the planet.

The causes of these fires have long remained undetermined, while many have disputed the evident urgency as nothing more than a “natural occurrence.” According to BBC News, data from The National Institute for Space Research reveals how the number of forest fires in the Brazilian Amazon between January and August have increased by 84% from the same period in 2018. If the fires are just a natural occurrence as many say, an 84% increase suggests that nature’s equilibrium has been negatively impacted over time and these fires require immediate action.

Independent sources, on the other
hand, have identified the fires as deliberately started in efforts to illegally deforest land for cattle ranching. To contextualize these alleged actions, it is important to note that how Brazil is one of the largest exporters of beef as it exported over 1.6 million tons of beef in 2018 — the highest volume in recorded history. Additionally, Brazil’s cattle herd has increased in number by 56% over the last two decades, revealing the necessity for larger expanses of land in order for this increase in herd size. Recent sources support claims of intentional burning, as an NBC News article published on September 22nd states how the problem “is rooted in illegal logging and criminal networks exploiting the forests for its natural resources and agricultural potential.” What this reveals to us are measures the Brazilian government, agribusiness, and ranching oligarchs will take in order to further their profit, even at the expense of one of the most valued ecosystems on the planet.

As the environment around us continues to face increasing stress as a result of human greed, it is important that we all take action to relieve environmental stress. If you wish to make a difference in response to this ongoing catastrophe, one step you can take is to adopt a plant-based vegan diet. Animal agriculture has an enormous impact on greenhouse gas emissions as meat production accounts for 41% of emissions in the United States. Emissions from animal agriculture go deeper than cows producing methane gas, as fossil fuels are also burnt in the raising, slaughtering and transportation of livestock. Wide scale societal transitions to a plant-based diet could significantly reduce these emissions by reducing the demand for meat-related products, thus decreasing profits for agribusiness as well as the land necessary to rear livestock.

In a world dominated by corporate corruption, it is imperative that we stand in solidarity under a common love for our planet and for each other so that we may bring forth the change we wish to see.

Works Cited


The Green Team and the Living Labs

By Darrian Beam

About Green Team....

This summer I worked as a member of the Green Team, a group of students who intern for the Landscape Architecture department under Prof. Christina Kaunzinger and Prof. Holly Nelson. Green Team members are stewards of the Living Labs gardens on campus. The Living Labs offer an impelling approach to learning, by providing education outside of the classroom. The gardens were designed along the Living Labs goal to “make sustainability a part of the everyday fabric of the university”. You may have noticed some of these gardens throughout Cook Campus...the Pollinator Plots attract bees and butterflies, a curated meadow leading up to the Institute for Food, Nutrition and Health promotes diversity, while the herb garden provides organic food to Harvest Cafe. In addition to bringing beauty into the academic setting, these are gardens with a purpose.

This program provides students with experiential learning, offering hands on lessons in plant and insect identification, ecological relationships, and garden design. (Not to mention...new friends!) If you see a Green Team member at work, feel free to ask us what we’re working on!

Meeting New Faces...

My favorite part of working in the gardens was meeting some unexpected creatures...and I’m not just talking about my fellow gardeners. During a hot week in August I came across two Dog Day Cicadas, and two Praying Mantis. I found these species stunning, especially the cicadas with their jewel-tone camouflage pattern. I think of these little guys as the gardeners’ helpers, because they actually help keep our plants and soil healthy through the symbiotic relationships they have with the garden life. Adult Cicadas, for example, feed off the xylem (or sap) in the trees. In turn, they are food for other species such as moles and shrews. Meanwhile, the Praying Mantis uses the gardens for camouflage protection, while keeping other species populations under control as a predator. I am interested in learning more about the different species that call our gardens home, and plan on looking into this topic throughout the semester.
Growing as a Gardener

When I first joined the Green Team I was nervous about pulling up the wrong plants and ruining the design of a garden. I would always wait to garden with Christina or another student. As the summer progressed I grew more familiar with the designs of each garden. Now I feel comfortable going to garden alone, and even directing a gardening session. I am more able to identify different plant species. As I learn about them, the gardens become more inviting spaces. I value this opportunity to connect with the roots of Cook Campus, and I am excited to see how my teammates and I grow the rest of this year!

Coreopsis

Works Cited

Living Labs and Sustainability, livinglabs.rutgers.edu/about_sustainability.html.


Last Friday, I clocked out of work early to join a large mass of students, professors, parents, and other community members to protest in the name of environmental justice. As I walked with the crowd, halting traffic as we went, I chanted for ‘climate justice’, to ‘put fossil fuels to rest’, and for the end of corporate greed. But a thought kept coming up in the back of my head that pulled me out of my environmental mantras. How are we going to accomplish these goals? I saw signs all around that read ‘Green New Deal’, in reference to the favorite talking point for almost all Democratic candidates and the bane of the Republican Party’s existence.

The historic New Deal, for which the Green New Deal is named, was a cluster of economic strategies to jumpstart a failing economy during the Great Depression. This took the form of public works projects, programs for the needy, financial reforms, and regulations. Unlike the New Deal, the Green New Deal does not lay out any concrete strategies or policies. Instead, it is a proposal of promises to gear future policies towards net-zero emissions, job security, and environmental justice. Many supporters of this proposed legislation see it as a rudder that steers the ship, while critics see it as putting the chicken before the egg.

Climate change impacts all aspects of governmental, corporate, and individual human activity. Instead of uniting the nation around a central goal of combatting climate change, The Green New Deal has done more to divide the two parties and to ostracize those who criticize it. In order to shift the tides of this environmental crisis, we have to step outside of party lines and be critical of both sides of the coin. We must remember how we got to this point, and we must question whether or not our views of the enemy are actually helping us move forward.

The Republican Party has voiced much less support for the Green New Deal compared to their liberal counterparts. In fact, not one Republican politician has publicly backed the legislation. For the past decade or so, the political parties have experienced a great and powerful fissure over the topic of climate change. On one side of the fissure are the Democrats who place the environment high on their list of priorities as America’s only hope to save the
trees. On the other side are the Republicans and their shovels, eagerly digging for more fossils to burn. This narrative has only been entrenched by Democrats like Representative Alexandria Ocasio Cortez who stated that changing Republican anti-environmental stances to more moderate environmental policies is “not that much different than denying the severity of the actual issue at hand”. While effective in gathering passionate activism such as our strike outside Representative Frank Pallone’s office, narratives such as these can also ostracize people from joining the cause and deepen the divide.

How did we get to this point? Why is half the nation willing to overlook the overwhelming evidence? The answers lie in psychology and human responses to trauma and stress. Not too long ago, both major parties looked about equal in terms of political priorities. Presidents Nixon and Reagan both advocated strongly for environmental causes. It was not until the turn of the century when we start to see the two sides suddenly splitting apart. This political mitosis could be due to a plethora of catalysts.

During the span of time between 9/11 and the 2008 recession, the American people were living in tumultuous times and responding in different ways. The Democratic Party saw these issues as signs to change and adapt, to create drastic solutions to drastic issues. This is where many liberal ideologies start to take form. The Republican Party, on the other hand, responded by turning inwards. The Southern and Western states saw their economy collapsing and their national security jeopardized. Their politics centered around the restoration of the status quo and the fortification of security. What we focus on and want to save most in the face of crisis varies from person to person. This explains why conflicting political views are cumbersome and difficult to resolve. But this does not mean there is no overlap between these two parties in what they are willing to give attention to.

Republican Senator Lamar Alexander is a strong proponent for increasing environmental research, solar batteries, green infrastructure, and nuclear energy. His work as a chair on the Senate Appropriations Committee’s Energy and Water Development Subcommittee is to advocate for a “New Manhattan Project for Clean Energy.” Republican Representative Lindsey Graham, along with Democrat Representatives John Kerry and Joseph Lieberman, nearly passed a bill to
put a hard cap on carbon emissions back in 2009. The success of this bill relied heavily on appealing to both Republicans and Democrats which meant making some tough compromises. The cap on emissions would suffice for Republican politicians only if an increase in offshore drilling and nuclear energy was also implemented. While not the firm environmental stance reflected in the Green New Deal, this proposed legislation addresses the fears of economic collapse and job insecurity.

Many Republican states depend on fossil fuels to power their homes, cities, and factories. While a switch to renewable reliance is possible, it cannot happen overnight and serious economic issues as a result of change must be mitigated. Although we may hope that the Green New Deal will somehow create new power plants, infrastructure, and electric cars without the use of fossil fuel methods of production, it just cannot be done. You have to crack a few eggs to make an omelet and as environmentalists love to say, there is no such thing as free lunch.

Where do we go from here? Do we scrap the Green New Deal entirely, hold hands with the conservatives and sing ‘Kumbaya’ as our world burns? No, not necessarily. The Green New Deal has been highly effective in pushing the conversation about climate change to the forefront of everyone’s minds. Approximately four million people around the world came out to participate in the global climate strike on September 20. These activists may come from different backgrounds and hold different political views, but they are all united in saving this planet just like you and me. Greta Thunberg addressed leaders and activists with this reminder: “No matter how political the background to this crisis may be, we must not allow this to continue to be a partisan political question. The climate and ecological crisis is beyond party politics.” Our enemy is not the Republican Party or Donald Trump. Our enemy is ourselves, our stubbornness to talk with one another, and time. Yes, we must act now. Yes, we must act boldly. But in order to get everyone on board, we must face some more hard truths about how our biases shoot us in the foot.

Works Cited


This summer, I had the privilege of becoming an intern at ReVireo, located in Cranford, New Jersey. ReVireo is an energy efficiency and green building services company, focused on reducing the cost and challenges involved with building energy code compliance, through consulting, testing and energy certifications. Energy code compliance is imperative for all buildings, as it is a state-mandated requirement.

ReVireo provides services for three types of buildings, including residential buildings with three or less stories, residential buildings with four or more stories, and commercial and institutional buildings. For a new project, ReVireo provides energy modeling using comprehensive software to meet energy code in the most efficient way. This model is used by the owner and the builders as a blueprint for the building. ReVireo then provides permit documentation to demonstrate compliance with energy code at the design stage to the municipality where the project is being built. Throughout the building process, ReVireo provides inspections and testing, to ensure that the project is meeting energy code, under the Home Energy Rating System. Testing includes Blower Door and Duct Leakage testing, which shows where energy is being lost. An example of energy loss can be improper installation of insulation, allowing for heat or cool air to escape the home, thus lowering the energy-efficiency. ReVireo also performs HVAC Manual J, S & D calculations to efficiently design heating and air-conditioning systems. Beyond the basic code compliance, ReVireo provides consulting services for energy certifications, including ENERGY STAR, Indoor airPLUS, Department of Energy (DOE) Zero Energy Ready Homes, and many more.
While meeting energy code is state-mandated, obtaining further certifications is beneficial for the owner. Start-up costs may be daunting for some, but the return on investment stands as reason to pursue the certifications. Energy certifications can provide the owner with tax credits, utility company rebates, and other incentives. Furthermore, the public perception of an environmentally-conscious company can lead to more business.

ReVireo has a multitude of finished projects, but most notably to Rutgers students, is the College Avenue Academic Building, the Honors College, and the Yard apartment complex. This project obtained the LEED-Silver Certification under the LEED 2009 for New Construction & Major Renovations rating system. This is a prestigious certification that goes beyond the mandatory state required code compliance. To learn more, visit www.RutgersLEED.com, which includes a video documentary series.

As an intern at ReVireo, I was able to learn about and be involved with many aspects of the business. In an effort to increase public knowledge of ReVireo and gain new clients, I distributed educational information to hundreds of architects, as well as researched contact information for thousands of potential clients in the five boroughs of New York City. I was able to help in multiple sectors of the company, which allowed me to learn a vast amount about energy code compliance and green building consulting.

As an Environmental Policy, Institutions, and Behavior major, I have
multiple avenues of possibility when it comes to my future career. By learning about the building energy efficiency and green building sector, I have found that there is a wide array of opportunities beyond what I imagined that allow for environmentally beneficial work. Knowing that the work I have completed ultimately benefits the environment through reduced energy consumption and environmental impact of buildings gives me great pride and desire to continue in this field. No matter where my future takes me, I want to know the work that I do has a hand in improving the environment and the way humans interact with it.

Works Cited


“RUTGERS UNIVERSITY.” Rutgers LEED, Rutgers University, 2019, www.RutgersLEED.com/
In the United States, we live in a throw-away society, and have become so accustomed to a fast-paced way of living, that we often forget about the repercussions of having food so readily accessible. Food waste is no exception to this fact. As the agriculture industry innovates ways to keep up with expanding population numbers, it is inevitable that more food waste will end up in landfills.

There are several ways by which the Rutgers University community tries to mitigate food waste around the campuses. The Rutgers dining halls have implemented a few remedies for food waste from reaching landfills. For example, a Somat pulper extracts the water from food waste while grinding it to make the food more compactible, therefore taking up less space in a landfill. The compacted waste is allegedly picked up by a pig farmer who uses it as pig feed on his farm. In addition, there are nine aerobic respirators established in places such as Henry’s Dinner, IFNH, and the dining halls, as stated by Joe Charette who is the head of Rutgers Dining Facilities. In addition, food biodigesters are also established on campus, but it is unclear how many and how actively they are being used.

I met with executive board member of the Rutgers Compost Club, Morgan Mark and Secretary Brigitte Shackerman to ask them a few questions on where they think we could collectively improve our food waste production at Rutgers. The compost club held their compost collection on Saturday September 20th on the College Avenue campus. The club successfully collected over seventy pounds of food scraps. The Executive
members also commented on how New Brunswick residents helped to join the collection, and even donated food scraps after learning about the compost club’s efforts. After the collection, the waste is brought to the composting bins located on the Cook/Douglass campus. I asked them about some ways in which students can minimize their food disposal. They suggested when eating at the dining halls, to take a small portion of a dish if you are trying it for the first time, and maybe even think about joining the compost club to create a difference first hand.

As a start to help mitigate the food waste issue at Rutgers, students should be more actively informed about where their food waste is disposed of, when eating around campus. Another way to mitigate food waste is to follow the EPA’s food recovery hierarchy which deems composting to be a last resort before it reaches a landfill, the first being to source reduction and reuse food scraps. Additionally, food could be put inside clear trash bins in the dining halls so that students could see all of the food that is being disposed, while having printed flyers of the recovery hierarchy on the walls. It is important to encourage discussion about where our food waste goes, and whether the methods proposed to solve them are actually being enforced. This can only happen if more and more students are aware of the issue in the first place. By actively participating in clubs such as the Compost club, students can see firsthand that food waste is a problem, and that it can undoubtedly be prevented from reaching landfills with the right techniques.

Works Cited


Parrots in Indian state of Madhya Pradesh have been destroying poppy plants in farm fields, in order to feed into their opium addiction. Due to the inconsistent rainfall in this area that has restricted cultivation of seasonal crops, parrots have been ravaging the poppy plants since 2015. In the cultivation process, farmers cut the pods in order to ripen the plants, which in result exposes latex, which is high in morphine. After waiting patiently for this step of growing the plants, parrots silently land in the poppy fields to peck at the flowers and to consume the white, milk-like opium. Some birds display possessive behavior, as they collect and fly away with multiple plant stalks.

At first the birds came to the fields in groups, making noise and drawing attention. However, this behavior changed after the parrots learned the consequences of being noticed by farmers. A wide range of these parrots have intelligently learned not to squawk or make noise while stealing the plants to avoid detection by farmers. This constant invasion of birds in the field has required persistent surveillance to avoid destruction.

The opium poppy plant, also known as Papaver Somniferum, is the oldest medicinal plant cultivated by humans in the world. This plant has been utilized for thousands of years as an opiates. As of late, this opium plant has been processed for painkillers such as morphine and codeine. The opium gives the parrots an instant
burst of energy, and has led to an addiction. The birds now continuously fly above and into the fields to resupply. David Moye of the Huffington Post explains that this drug hungry action has had a great effect on farm production, as the opium-addicted parrots are causing widespread destruction. The Indian government requires cultivators to provide a specific quantity of opium every year for medical uses. It has been estimated that parrots are stealing 10 percent of the poppy plant crops.

Farmers have tried numerous methods to put a stop to the demolition. These attempts include day and night supervision, yelling at birds through a loudspeaker, beating drums, and setting off firecrackers to scare them away. All of those endeavors have failed. According to the farmers, district officials have ignored their request for help to keep the parrots away from their crops. Farmers have confirmed seeing the parrots in an intoxicated state, noting that the birds would run into tree branches, fall over and flying away once the narcotic wore off. Some birds have been spotted sleeping for hours on branches before falling to the ground as a result of opium overdose. The Indian agriculturists have complained that there are already problems with the inconsistent rain, and that the issue of opium-addicted birds only puts further strain on their livelihoods. Farmers have been planning to create some sort of radical solution, in hopes that they can keep the birds gone for good.

Works Cited
Keyser, Zachary. “‘Opium-Addicted’ Parrots Terrorize Indian Poppy Farmers.” The Jerusalem Post /JPost.com, 3 Mar. 2019
Sexton, Chrissy. “Wild Parrots Are Destroying Poppies to Feed Their Opium Addiction” Earth.com, 2 Feb. 2019
Specktor, Brandon. “Opium-Addicted Parrots Are Terrorizing Poppy Farms in India.” LiveScience, Purch,
Following the 2018 midterm elections, the Democratic Party regained control of the House of Representatives over the Republicans—allowing for the introduction of many “big idea” progressive reforms to see the light in the lower house. One of the reforms that is gaining the most traction and urgent support from liberals is The Green Deal—a bill sponsored by progressive superstar, Rep. Alexandria Ocasio-Cortez (D-NY) and Senator Ed Markey (D-MA). The proposed legislation establishes the interconnected dependency of environmental issues with various social injustices thus, making combating climate change and economic inequalities its main focal points. Inspired by the post-Depression era public works programs and economic reforms of FDR’s New Deal, The Green New Deal incorporates the need for a total energy transition to nonrenewables and an infrastructure transformation, with healthcare reform and economic progress for millions of Americans.

According to AOC, the ultimate goal of the Green New Deal is to cease the use of fossil fuels entirely and to meet “100 percent of the power demand in the United States through clean, renewable, and zero-emission energy sources”. Some of the particular reforms of the GND include updating all existing buildings to fit new energy standards, reducing agricultural energy waste whilst supporting American farmers, guaranteeing healthcare for all, providing decent wages, and a full infrastructure overhaul for emissions reduction and an increase in public transportation efficiency. Additionally, The Sierra Club details that the infrastructure and energy transformations proposed
transformations proposed by the GND, like replacing all lead pipes and new industry standards on particulate emissions, would solve a string of environmental health crises involving water and air pollution—many of which directly target minority and economically disadvantaged communities. The Green New Deal will not only deal with climate change and systematic environmental prejudice, but it will also produce millions of unionized jobs in the process.

With the 2020 Presidential race in full swing for Democrats, climate change reform and the Green New Deal have been the major topics of discussion through campaigning and this past summer’s Democratic debates. All of the leading candidates like Joe Biden, Bernie Sanders, Elizabeth Warren, and Kamala Harris support the legislation in addition to, strong suits like Beto O’Rourke, Andrew Yang, and Pete Buttigieg. Although all of the prominent candidates agree on reaching a zero net emissions goal and a significant reduction or elimination of fossil fuels, they differ in their approaches to reaching these goals. Deeming climate change as a “national emergency” and an “existential crisis”, prominent progressives like Bernie Sanders (I-VT) and Elizabeth Warren (D-MA) were some the first members of Congress to support the GND from the get go. Senator Sanders has established an extremely comprehensive plan that invests the most money ($16.3 trillion over the next decade) in the climate crisis in comparison to the other candidates. Sanders continues to highlight that the Green New Deal would “pay for itself” by the millions of unionized jobs that it would create in addition to, imposing new fees and taxes on the fossil fuel industry. On the other hand, Senator Warren chooses to spend around $3 trillion under a 10 year plan to move the United States to 100% clean energy. As additions to the efforts of the GND, Warren has proposed the Green Apollo Program.
to promote investments in alternative energy and the Green Marshall Program as an incentive for foreigners to buy U.S.-made green technologies. Finally, former vice president and front runner, Joe Biden has proposed his own 22-page climate action proposal in addition to his support of the GND. Unlike his counterparts, Biden as opted for a more modest proposal, where his goal for zero net emissions is marked at 2050 with spending set at $1.7 trillion, over the course of a decade. Controversially, Biden supports nuclear energy as an alternative to fossil fuels and has not specifically mentioned his stance on hydraulic fracking clearly enough.

Amidst the deep rifts of a divided nation and an intense race for the Democratic candidacy, the climate crisis looms over not only America, but also the rest of the world. The Green New Deal incorporates progressive “big ideas” into a legislation that is urgent and transformative for American economy, healthcare, and environmental issues. The Green New Deal brings a new standard to the forefront of American environmental reform - time and leadership will determine if it will flourish like FDR’s reforms or perish in the annals of failed policy.

Works Cited


Senate Democrats.“GreenNewDeal_Presser_020719 (26 of 85).” 7 Feb. 2019 https://flickr.com/photos/32619231@N02/46105848855
The global climate strike on Friday, September 20 was the largest single global climate event in our history. Millions of people around the globe, at over 2,500 events in 163 countries, stopped what they were doing to rally for climate justice. Protests called for the just transition to a green new deal economy; for the uprooting of an economic system crafted through colonialism and a cycle of global-south dependence; and for equity in the face of environmental racism, which has placed poor, typically black and brown communities on the front line of harm.

In our local protest, more than 500 Rutgers students, faculty, and community members rallied to demand a fossil-free future from the Rutgers Board of Governors. We then marched to join an additional 150 Highland Park high school students and community members at the doorstep of U.S. Representative Frank Pallone’s New Brunswick office. As our protest filled the street, we demanded that Pallone use his influence as the Chairman of the Energy & Commerce Committee to hold fair hearings on the Green New Deal, to call for zero carbon emissions by 2030, and to return and stop accepting campaign donations from the fossil-fuel industry.

The broad call for climate justice meant expanding the platform to those who face the most problems yet receive the least face time in the mainstream news cycle. At Rutgers, the Okeanos Foundation for the Sea spoke about global-south island nations facing existential threat. The Rutgers Latinx American Women’s Org, Black Lives Matter chapter, and Students for Justice in Palestine spoke of environmental racism, disproportionate hazards and burdens placed on black and brown communities, and an ethical
obligation to end all forms of political oppression to form a just society. In front of Frank Pallone's office, a New Brunswick mother and member of New Labor named Yolanda spoke about her organizing efforts to get air conditioning in her child’s school because the school board refused to address the unsafe heat problems.

The strike has led to some success so far for Rutgers students. Rutgers President Robert Barchi responded to the action by creating the President’s Task Force on Carbon Neutrality and Carbon Resilience, with the task of delivering a comprehensive climate action plan for the university. Representative Pallone, however, reacted to his constituents’ demands with a ‘thanks’ for their activism and reassurance that his plan to decarbonize by 2050 is adequate, in conflict with the 2030 target of the Green New Deal. Representative Pallone, who said a ban on fossil fuel donations would be ‘too limiting’ in January, did not respond to demands to refuse future fossil fuel donations.

On the world stage, Greta Thunberg, the 17-year-old climate activist who began the Friday’s for Future school strike movement more than a year ago, summed up the youth-led global climate strike movement best. Thunberg said at the New York City Rally: “Right now we are the ones who are making a difference. If no one else will take action, then we will… We demand a safe future. Is that really too much to ask?”

Power must be taken through the organized efforts of collective action. The success that can come from this youth movement will be from a surge in political participation – in public discourse, in community involvement, in civic engagement. Voting at the polls is not enough. It has been proven through the struggles of the civil rights movement in the 1960s and the environmental movement in the 1970s that power is not readily passed down from those who sit in positions of comfort. We must raise our voices to call out the injustice of all forms. We have a right to be angry. We have a duty to demand better. We will fight back against the leaders who have failed us.

**Works Cited**


My Not-So-Environmental Summer Recap

By Kira Siligato

Over the summer, I worked in the food and beverage department of one of Atlantic City, New Jersey's casino resorts. One of the things these businesses do well is create a luxurious experience but at the expense of massive amounts of waste due to the generous attitude of their food and beverage service. When working with cocktails and food in particular, the amount of plastic, electricity, and water, whether used or wasted throughout a shift, is monstrous daily.

Being in a major that focuses strongly on environmentalism and sustainability there was definitely dissonance in my actions working here. I would sometimes attempt to hide a cup from my manager so that I wouldn’t need to waste 10 plastic cups just to drink water, but this effort was seen as a strike by health inspectors and distracting from the glamour of being at a luxurious resort. Looking back now, this all seems like a micro-example of a phenomenon that is putting environmental change on the backburner: it just isn’t a luxury, or convenient, or cool. This is a broad topic amongst environmentalists, psychologists, and other professionals; the questions as to why environmental awareness has become unappealing or perhaps subordinate. These are a few thoughts that reflecting upon my summer brought to mind.

In many settings, whether it involves a younger or older crowd, showing some amount eco-consciousness is reacted to as a joking matter. People will often be taunted and sarcastically asked things like, “Have you saved our planet yet? How are the turtles?”. Even without taking the controversy over environmental awareness into consideration, much of society is stuck on the recurring trend of apathy (at every age), referring to the “cool” and “laid-back” personage that has been associated with it for a very long time. Another large part of this is the persistent inability of much of society to accept other’s actions and motives, even for something as small as taking notice to how much plastic or food the bar you’re sitting at is blatantly wasting. To many people, being openly conscious about such things during your stay at a casino resort is absurd and unfitting to the lifestyle. One more perspective to point out is the atmosphere of living in luxury, whether it’s often or just for a night’s visit, and how that may have an effect on environmental actions. Those who are able to enjoy such expensive cocktails and dining room fees are typically deemed as not those who feel they need to worry about the environment or about climate change. Casinos like to think that the customer may even be happier knowing the casino they are visiting has the money to function this way.

These characteristics and examples just brush the surface of the relationship between psychology and environmentalism along with other fields and subjects that they connect to. This journal entry of an article was meant to be a short opener to this topic which I will be sharing bits of information on throughout the semester.

Good luck in your semesters!
Going Zero Waste

By Rebecca McGarth

Going Zero Waste has become a trend in the environmentalist community, however, how attainable is this lifestyle for the average everyday American? As a college student, I wonder if a zero-waste lifestyle is doable while in school.

As a college student, my reason for trying to go zero waste, or at least getting as close to possible to zero waste, is I simply got sick of taking out my trash. I’m partially joking about that last sentence, but my almost always full trash can is what prompted me to think about just how trash I produce. Without fail, sometimes within less than a week, my small trash can in my dorm is full. I started to think about how much waste I am producing, and as an Environmental Policy major thinking, maybe I should be doing better. Since coming to college, I have stopped using plastic water bottles and straws, but that’s about it. Despite using reusable bottles and straws, I am still using single-use plastic almost every day. Part of my reasoning for wanting to at least try going zero waste, is the guilt I feel from being aware of how my use of single-use plastic, and again, taking out all that trash.

To be completely honest, I have nowhere to start other than an article I once read about a woman who could fit about two years’ worth of trash in a mason jar. The woman is named Kathryn Kellogg, arguably one of the founders of the modern day Zero Waste movement. She has been running a blog since about 2015, and I decided to check it out. She has a blog post specifically for beginners like me. According to Kellogg, the simple definition of zero waste is: “to send nothing to the landfill”. However, her version of the complex definition is: “to completely redefine the system, to move a circular economy and write waste out of the system.” In looking at the complex definition, zero waste is more than producing trash, but redefining the economic system that produces waste. The term zero waste was first used in the 1970’s by Paul Palmer, but in terms of industry. Paul Palmer started to sell left over wasted lab chemicals that were going to be wasted to companies instead because he did not want them to go
to waste. This is the whole concept of zero waste started.

The concept of zero waste started way before the 1970’s, it starts with how consumption has changed. Consumption pre 1950’s was different due to less packaging. All packaging was reusable. The culture of consumption was different then as well, where people did not like to throw away items they had paid for. Today, people have no problem throwing away items they paid for after one use. The biggest environmental issue, arguably, is over consumption. Humans are using more resources faster than the Earth can replenish them, which one of the solutions in the first article that Kellogg has written for beginners. A circular economy is reusing all items bought, creating a cycle. Whereas, a linear economy does not recycle or reuse at all. Part of zero waste is the transition from linear to circular. The economic transition from linear to circular is something that would most likely take more than one person could do; zero waste is currently an individual concept more than a societal one.

Going back to a starting point, looking at the next blog post for beginners, Kellogg explains the five R’s: Refuse, Reduce, Reuse, Rot, Recycle. Here is a breakdown of what each one means in my own terms:

- **Refuse**: not buying new items or items that would produce waste
- **Reduce**: reducing consumption, very similar to refuse
- **Reuse**: investing in a reusable item, like water bottles and utensils
- **Rot**: anything that cannot be reused, like food goes to compost
- **Recycle**: taking an old item and changing it into something

These are the five things to keep in mind while I try to zero waste. My biggest concerns are how to get grocery or snack items without packaging, and if the going zero waste will cost a lot.

**Works Cited**


It’s time to confront a hard pill to swallow—the land currently used to get rid of our trash is running out of space and it won’t be long until other plots of land are cleared to become new landfills. This isn’t really an issue relevant to most people until a city planner decides that a part of our neighborhood would be ideal for a landfill. How’s that for a visual?

Now, growing up, we’ve all likely heard of the three R’s—reduce, reuse, and recycle, but never really thought too much of it once we left the classroom. I was never a litterbug or anything of the sort, but I didn’t care too much about where my trash ended up.

With that being said, my perspective changed when a random ad about waste and minimalism popped up on my Youtube feed a few months ago. After clicking on it, I became so interested that I spent the next two hours watching videos about related topics on landfills and more. In one of those videos, the narrator began by emphasizing the sharp drop in air quality around the waste facility and focused on the mountains of trash in the field. There were huge piles of food scraps mixed with paper, boxes, and mostly plastic products. Occasionally, another dump truck would arrive, adding to the already crowded site. Halfway in, I noticed that some workers weren’t wearing masks and became concerned about the workers’ health—constantly being around those fumes couldn’t be safe in the long-term. After the video was over, I kept thinking about what I saw. I began wondering how much of the trash was possibly extra food that someone in need could’ve eaten and how many things were thrown away after being used only a few times.

Seeing the conditions of landfills prevented me from distancing myself from the reality that I was a part of the waste problem through my own careless behaviors. The fact of the matter here is that many of us are guilty of making spontaneous purchases on things we just need to have. Except, that’s a fib we sometimes tell ourselves so we don’t feel as bad about making said purchases. Over
time, the desire to acquire more things, simply for the sake of having them, can become almost all-consuming and can cause people to become strangers to themselves. In a way, it appears that many of us are buying lots of products to represent status. The price tag and the brand of a product tend to hold more importance than its intended use. This object-centered way of thinking is more commonly known as materialism. Although this mentality is gradually becoming the norm globally, it is very noticeable in industrialized countries of the West. People are regularly encouraged (through aggressive commercials) to buy the latest trends, even if they already have a recent model.

I knew I wanted to change my spending habits, mainly for three key reasons. One, it felt overwhelming to see so many random things I bought covered in dust and taking up lots of space in my room. Two, the money I was spending on these purchases could’ve been better used for more important things or could’ve gone into my savings. Three, when I eventually got tired of seeing the junk in my room and threw it away, I was adding more waste to those crowded landfills. All in all, my unique ‘experience’ this summer encouraged me to walk more on the path to sustainability for the overall health of my community. And one of the most effective ways to deal with excessive waste is through prevention, so I’ve been doing this is by purchasing things I could see myself using for a long time so they don’t end up polluting the environment.

Works Cited

In 1968, Paul Ehrlich, an entomologist at Stanford University, published one of the most well-known books of the 20th century entitled The Population Bomb. In his groundbreaking book, he acclaimed that humanity was rapidly heading towards “mass starvation” unless efforts were made to drastically reduce population growth. Many people were appalled by the extreme position held by Paul Ehrlich, but it didn’t stop a new environmental movement from taking form; an environmental movement focused on limiting population growth, so we can better provide adequate food and resources to people. Limiting population growth could involve abortion procedures, birth control or having governments enforce a limit to how many children a family can have, like the two-child policy in China.

The population Control Activists (Neo-Malthusians) are not the only group involved in this discussion. The moderates agree with the Neo-Malthusians to a certain degree that over-population is a problem, but they do not recognize as a major problem.

Finally, the Marxist position maintains that overpopulation is not a problem, but distribution of resources can cause mass starvation. For purposes of this article series, I will be taking the position that the Earth is not suffering from a population problem. I
think that the Earth has gifted us with an abundance of resources to feed the 7.7 billion people currently living on the planet, and even if the world’s population were to continue growing, we would not run into a shortage of resources.

Virtually everyone would agree that watching people suffer and die from malnutrition is heartbreaking and sad, but overpopulation is not to blame. It is the poor distribution of resources that allows people to suffer.

I will explain my position further as we progress through the four-part series. For now, I will address the specifics of what will be covered in the series. In part II, I will be discussing the beliefs, and history of the Neo-Malthusian position, with an emphasis on Paul Ehrlich’s book The Population Bomb. Part III of the series will focus on the beliefs and history of the Marxist position, and the moderate position. I will be paying attention to how religion has played a major role in influencing people’s beliefs about over-population as a non-issue.

Part IV will be the final part of the series. In this part, I will be drawing the series to a close, and offering my final thoughts and advice to the reader on how to approach the crucial issue of overpopulation. Special attention will be payed to some of the motivations of people endorsing their beliefs in the Neo-Malthusian, Moderate and Marxist positions.

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**Works Cited**

“7 Lessons From Marcus Aurelius”. *Merce Cardus*, 60 Aug. 6459,
https://mercecardus.com/meditations-marcus-aurelius/.

*Smithsonian.com*, Smithsonian Institution, 5Jan. 6452,


“How Big of a Problem Is Overpopulation?” Forbes, Forbes Magazine, 30 July 2018,

“Current World Population.” Worldometers,
https://www.worldometers.info/world-population/.

GotQuestions.org. “What Does the Bible Say about Population Control?” GotQuestions.org, 17 July 2013,
This past August, the 15,000 service lines of the Pequannock service area in Newark, New Jersey were approved to have the lead pipes replaced with copper pipes. While national attention has reached the near apex of Newark’s lead water crisis, the issue has been long ensuing. Even around 2011, 12.2% of water samples collected from the city’s schools tested to be above 15 parts per billion (ppb), the federal actionable lead level set by the Environmental Protection Agency (EPA). This trend continued to decrease, but the progress reversed in the 2013-2014 school year, most likely because of new management practices.

The city of Newark changed its water acidity levels to a lower pH to avoid violating a federal standard that restricts the production of ‘possibly carcinogenic’ byproducts at certain levels during the process of water disinfection. The change in pH essentially made the water more corrosive; as of last month, the previous corrosion control methods were rendered ineffective. This is likely from the misinterpretation that sodium silicate was acting as the ‘main driver’ of the coating and protecting the lead pipes from corrosion. It was found that another compound that forms at higher pH levels was the main protection from lead leaching into the water supply. By 2017, Newark had officially surpassed federal actionable lead levels for the first time since the 1990s.

More than 13,000 free water filters have been distributed to residents of the affected areas of the Pequannock water service area. Most recently, the county has loaned the city 120 million dollars to replace the 18,000 affected pipelines. The replacement process has been estimated to take over 3 years, or at least by early 2022. Newark has thus far replace 770 service lines and distributed 40,000 cases of water to the affected residents. Current locations to receive water filters are provided at Boylan Recreation Center, Vince Lombardi Center of Hope, St. Peter’s Recreation Center, Hayes Park West Recreation and The Water and Sewers Facility.

The most harrowing fact from the culmination of these events is it has all been happening in slow motion across the state. Just three years ago, the city of Newark was reeling from the revelation from that over 30 public schools, the majority of which
were elementary schools, had found water sources contaminated with elevated levels of lead. For two years, the affected Newark public schools were provided bottled water for young students ranging from ages as old as eighteen to as young as five. Several clinics were set up for parents and guardians to test the blood lead levels of the affected children. The revelation had spurred other school districts to investigate the water quality in their own schools. This in turn led to the discovery that over 257 schools in NJ had drinking sources contaminated with lead in 2017.

Even prior to this crisis, some inquiry revealed that there was a higher proportion of young children in at least 11 cities in NJ alone that had elevated Blood Lead Levels (BLLs) that exceeded the recorded number among children in Flint, Michigan in 2015. These cities include Newark, New Brunswick, Atlantic City, Elizabeth, Jersey City, Plainfield, Patterson, East Orange, Trenton and Irvington. At the time, the largest worry was from lead paint present in older structures. Now there is a greater cause for concern about the lead in the water supplies, as it has shown lasting neurological impacts and there is not a minimum threshold for exposure. This is a far larger problem than anyone expected...

Works Cited


Exotic Animals are Called “Exotic” For a Reason

By Natalia Binkowski

Exotic: “introduced from another country: not native to the place where found.” Tigers, bears, monkeys, hedgehogs. These are just a few of the exotic animals that are taken from their homes - where they are supposed to be - and placed in environments that are uncomfortable, unnatural, and totally new to them. They *should* be in places like Africa, Australia, Brazil, etc., but instead, they are brought to the United States where they starve, suffer, and die. The populations of many of these animals are rapidly decline, leading to major changes and effects on the environment where they come from and the environment they are brought to.

Certain individuals, for years upon years, have continued the habits of using exotic animals as a symbol of their wealth. They buy them illicitly and privately. But how do these animals even get from place to place? How do they travel such long distances? They are transported in odd, cruel ways by smugglers. From baby turtles being taped up and shoved into socks to baby birds being put into tubes and into suitcases - the conditions these animals are put through are brutal and torturous. Even if these animals do live through the transportation process, their futures are not very promising. Their new caretakers cannot provide them with all the necessities they need, keep up with the maintenance, or replicate the habitats where these animals came from.

There have been many cases on the news of these animals lashing out within their captive environments such as, a pet monkey latching on and pulling out its owner’s hair or a tiger mauling its owner’s grandson. After such instances, owners either decide to attempt to be responsible and bring their beloved, but unwanted exotic pet to a zoo, or they choose the totally irrational path and just release it into the wild. The problem with the zoo scenario is that zoos could only hold and take care of a certain number of animals. With the number of exotic animals being brought in, there is not enough room for them - mainly because, well, they should be roaming free on a completely different continent. Zoos also do not want to spend even
more money on resources and shelters for these animals. They look to make a profit. On the other hand, if people decide to release their exotic animals into the wild, completely different problems arise.

Releasing an animal into an environment that it is entirely unacclimated can pose a serious threat to the animal, any other animal species around it, and the people living in the area. These poor, confused exotic animals roam around places they are not used to, in climates they should not be in, and become extremely malnourished, depressed, and lonely. They often end up dying shortly after they are released. Sometimes, the opposite happens, and certain animals end up taking over and over-populating in the area they should not be in. This can damage whole ecosystems, populations, food chains, and ultimately lead to the demise of native species.

Unfortunately, the U.S. is the main destination for these endangered and exotic animals because it is so profitable. Smugglers somehow find ways around inspections and manage to cause much trouble. One federal wildlife inspector claims that with the current number of inspectors, “we are able to physically inspect 25% of wildlife shipments”. There are simply not enough resources, laws, and regulations being put towards protecting wildlife. There are local, state, and federal laws currently, but even the federal law known as the Endangered Species Act (ESA), for example, does
not deal with private possession. In order to fix this issue, much stronger regulations must be put into place and more awareness needs to be brought to this issue.

As a reminder, here are a few things Born Free USA, a national animal advocacy nonprofit organization, says you can do to stop this issue from getting any worse:

- “For the animals’ sake and for your health and safety, please do not buy exotic animals as ‘pets’.
- If you observe an exotic animal being abused, living in deplorable conditions, etc., report it to the appropriate animal control agency.
- Educate others. Write a Letter to the Editor. Share this fact sheet with friends and family.
- Support legislation at all levels to prohibit private possession of exotic animals.
- Find out how your state, city and county regulates private possession of exotic animals. If your state, city, or county does not prohibit private possession, contact your state senator and representative or your city and county council members and urge them to introduce legislation banning possession of exotic animals.”

Works Cited


This summer, I went on vacation to Hilton Head Island, South Carolina. This breath-taking vacation spot has palm trees, manatees, and now a rare breed of turtles, the Kemp’s Ridley. I never heard of this type of species before, until I met my friend Cassie, who is the naturalist for Disney’s Hilton Head Island Resort. She hosts a plethora of activities throughout the week, including: a beach nature walk, resort nature walk at nighttime, conservation conversation, fishing with the naturalist, and crabbing with the naturalist.

Since I was at this resort for the full week, I tried to do as many naturalist activities as I could. One of the main themes for the naturalist’s activities that week was the Kemp’s Ridley turtle. We spent a good time discussing during conservation conversation and beach nature walk discussing this rare species and how to further protect turtles. Cassie even mentioned that there was a website in accordance to the Coastal Discovery Museum, where you can adopt your own turtle’s nest and track them. In addition to Cassie, my kayaking nature tour guide, Jeff, also discussed the Kemp’s Ridley sighting and how this is an amazing discovery. The Kemp’s Ridley sighting is a huge deal for not only Hilton Head, but South Carolina in general. According to Kathryn Kokal from islandpacket.com, “The Kemp’s Ridley turtle is the most endangered of the seven species of sea turtles” (Kokal 1).

Hilton Head Island has strict laws to follow in order to protect the sea turtles. For example, the resort I stayed at, Disney Hilton Head Island Resort, follows the rules of the town that all lights must out by 10 for the turtles. Turtles are a major part of not only the Hilton Head Island community, but its environment. In addition, Kathryn Kokal explains for the Island Packet that the Kemp’s Ridley had only been spotted in South Carolina four times (Kokal 1). Furthermore, Kathryn Kokal stated that the Kemp’s Ridley species has 7,000 to 9,000 nests worldwide (Kokal 1). However, even though
this rare breed may have laid a nest on Hilton Head Island, there is a scary future that lies ahead for the babies. Jen Viegas from Seeker.com explains the survival rate of turtle hatchlings, which have a 90% hatching success, also have a 1% survival rate. In accordance to what Cassie has stated during her numerous nature talks, half of the turtle nest survives birth, and half of that number survives getting to the water, and then half of that number survives to old age.

According to the “Evolutionary Distinctiveness of the Endangered Kemp’s Ridley Sea Turtle” from the Letters to Nature, Brian W. Bowen and other authors states, “The international programme to protect the Kemp’s Ridley represents the largest conservation effort for any marine turtle.” Therefore, there is already an effort to protect this species, and to then see this species not only near the Gulf of Mexico, but in Hilton Head Island, South Carolina, is a big deal. The history that has been made on Hilton Head Island does not equal the survival rate of this endangered sea turtle species and therefore, this rare species of turtles has the possibility of staying on the endangered list for some time, unless all people - tourists and locals - can follow all of the laws and regulations to help protect all marine species, even if this means cleaning up the trash you make on the beach, or not using plastic straws! However, these are just mere suggestions and not the only ways to help protect not only the Kemp’s Ridley species, but all turtle species.

Works Cited


It was a sunny summer evening in Austin, Texas. I was visiting Texas to celebrate my cousin’s high school graduation. About fifteen members of my extended family were sitting in the living room watching Netflix, playing board games, talking, eating or looking at old photographs. It seemed to be a fun night with everyone enjoying every moment that we spent together. A few minutes later, I noticed that the sky was darkening. My cell phone and the television sounded an alarm and a banner alert read: “Emergency Tornado Warning in Texas”. My cousins and I went to the front door and stepped outside. My cousin said they had been getting more random, unexpected thunderstorms that summer. I noticed that the wind was increasing in speed and intensity. The trees were violently swaying and garbage cans were thrown onto the streets. Inside, there was a sense of panic. My little cousin searched for her stuffed dog toy and started to worry about her parents who went outside for a walk. We stood outside for about five minutes before coming back inside to watch the news. We tried to guess how close we were to the destructive tornado, but it was hard to tell based on the map depicted in the news. About thirty minutes later, the repeated tornado warning transitioned into thunderstorm and hurricane warnings.

There are appropriate safety measures to take during a tornado. We should have taken cover in an underground basement or a closet without windows. Other ways to prepare for a tornado include identifying a local shelter and staying away from windows, doors, and outside walls. To protect one’s head and neck from flying debris, it is imperative to use one’s arms, and to cover oneself with blankets and pillows as a protective cushion against glass or moving furniture. After a tornado, it is recommended to listen to the radio or television to be aware of the extent of the damage. It is important to stay away
from broken power lines or utility lines and to only make emergency-related phones calls because phone systems are often down or busy after a natural disaster. It is recommended to use text messages or social media to communicate with family or friends. During cleanup, thick gloves and thick-soled shoes are recommended. If one is trapped, a piece of cloth should be used to cover the mouth and nose to avoid breathing in dust, as well as to bang on a pipe or wall or whistle instead of shouting. Shouting is not a good idea if you are trapped because then you are more likely to swallow dust and debris and choke.

Luckily, my family and I did not have to hide in a windowless closet or cover ourselves with thick blankets or pillows. What scared me the most is in only a few moments, someone could lose their entire house, along with everything they worked hard for and even their family members. This experience made me realize this is a reality for hundreds of people in the Midwest. I am more aware of the urgency to address the issue of climate change and am angered that Congress has not done anything about the issue. This experience has made me much more thankful and has encouraged me to advocate to solve climate change by raising awareness.

Works Cited


An Impossible Future
By Felicia Paradiso

Burger King and White Castle are not traditionally thought of as food destinations for consumers who avoid meat, but they are now on a list of restaurants offering artificial “meat” products that also includes Carl’s Jr., Dunkin’ Donuts, and Del Taco. The main competitors, Impossible Foods and Beyond Meat, sell plant-based burgers that imitate beef burgers in order to attract meat-eaters, something that typical veggie burgers have failed to do. While all plant-based burgers are made with the intent of reducing animal agriculture and its environmental impact, the creator of Impossible Foods, Pat Brown, goes several steps further. Brown believes beyond a doubt that his company’s meat products can and will completely eliminate the need to raise animals as livestock on a global level. Brown is ambitious, stating that once Impossible Foods takes over the beef market, which he estimates can start in only five years, they “can just point to the pork industry and the chicken industry and say ‘You’re next!’ and they’ll go bankrupt even faster.” Pat Brown has complete faith in his scientific solution to a global meat obsession, but perhaps the most important question is not if animal meat can be entirely replaced, but if it should be.

Speaking as a vegetarian, I firmly believe that most people in the United States and other more-developed countries could do with less meat, if any, in their diet. The environmental reasons for reducing animal agriculture are the most compelling; every year, livestock causes 14.5% of global greenhouse gas emissions, and the environmental impact gets significantly larger when other issues like deforestation and water and pesticide usage are included. National governments and large corporations hold much of the power in fighting climate change when it comes to decisions about energy production and transportation infrastructure, but the most important action that any individual in the US can take is to cut out meat and dairy. To this end, Pat Brown is correct to call for an absolute end to animal agriculture, but his goal may leave out important factors when applied to countries with different cultures and different agricultural systems than the United States.
One major hurdle is China, the world’s largest greenhouse gas emitter with a rapidly growing population that is hungry for meat. As people in China become wealthier, they begin to increase their protein intake, as they do everywhere else in the world, making it all the more important for Impossible Foods to enter the country, which they are currently in negotiations to do. However, in rural areas of China and other countries in Asia and Africa, the “eliminate all livestock” approach may no longer apply. Subsistence farmers who live off of their own goats and chickens and may not have access to a market where they can purchase meat substitutes will not care how well a plant-based patty sears on a grill and if it bleeds when they bite into it. The environmental impact of these livestock animals is inconsequential when compared to cattle ranches that span hundreds of thousands of acres and factory farms, and by treating all environmental agriculture as the same Brown may be hurting his own cause.

For plant-based meats to constitute a larger share of the meat industry and reach their potential as a way to greatly reduce greenhouse gas emissions, they must reach people who love meat. Threatening to take away all meat is likely not the most effective way to target that population, as evidenced by the responses to false claims that the Green New Deal will completely get rid of cows. Pat Brown’s belief in his cause is admirable and not without justification, but the framing needs improvement if the goal of minimizing environmental impact is to be achieved. Global meat consumption must make a sharp drop in the very near future, and plant-based meat will surely prove to be a key factor, but to effectively combat climate change, multiple balanced solutions should be favored over one extreme solution.

Works Cited


HOW I BECAME AN URBAN FARMER

By Naajia Shakir

The summer of 2019 was full of excitement, anxiety, and sadness about the things that have been happening. I always try my best to fight or spread awareness about the issues that affect my community and others in this country. However, there is only so much one is able to do. So, this summer I had the opportunity to work at a local farm in my home town of Camden, NJ where I managed the farmers’ market there. This internship was apart of a multifaceted program, Resilient Roots, with a non-profit organization entitled Vietlead. There are different tiers in the program depending on how advanced one is with their knowledge of plants and gardening. Typically, high school students start out in Resilient Roots, in which they learn about social and food injustices along with learning farm skills and cooking with fresh vegetables from the farm. The next year they are be able to become a Sprout (farm assistant), the majority of their tasks consist of planting, weeding, pruning, and watering. They mostly just help the managers with all the tasks for the farm. The year after being a Sprout, one can be promoted to a Land Gourdian (farm manager), this is what my position was this past Summer.

Though the process for each tier of the summer program seems meticulous, I actually didn't come through the program in the conventional
way. During the school year, Vietlead has another program called Jersey Roots, this was the program I always attended. However, I’ve never done Resilient Roots. Since I volunteered at the farm for many years and learned the same information or maybe even more in Jersey Roots as they did in Resilient Roots, I qualified as a Sprout the summer of 2018 and was able to work my way up from there. Throughout each Summer of high school, I participated in many different types of internships and programs.

At first, I thought that becoming a Farm Manager would be an easy job, since I knew the ins and outs of the farm from the years before, but it turned out to be far more insightful than I had anticipated. Starting at the end of May, the other Land Gourdians and I began planning our tasks for the summer and planting different herbs and vegetables in raised beds that we made the year before. In the farm, we planted tomatoes, bell peppers with varying colors, bittermelon, hot peppers, raspberries, strawberries, eggplants, cucumbers, cilantro, different types of basil, collards, kale, and other herbs like chamomile and mint. Being in the farm was always nice and peaceful even on the hot humid days.

The difficulty of the internship came from getting everything ready for the farmers’ market. The twelve students in Resilient Roots, split up and go into
different rotations after the first two weeks of workshop, this includes marketing, cooking, and farming. I was thankful to have my co-coordinator and a handful of students to work together in harvesting, weighing, washing, selling, and bundling the plants for the market. Some days we would have many customers, and other days we would have less. The market would run from 4-6 pm every Wednesday and after it was over, the students and staff would be able to take whatever was left over from what we harvested.

Though I mentioned that this internship was intense at times, it taught me important skills that I would need in the marketing and advertising business. At the end of the program, the students would tell me that marketing was their favorite rotation, and that made all my efforts worthwhile. I am grateful to Vietlead and the students I met along the way since the beginning of high school up until now. Volunteering and working at the farm was what influenced my decision to major in Environmental Policy, Institutions, and Behavior. Teaching and learning how to grow my own food in an urban community was amazing, and I can’t wait to expand my knowledge upon the subject of combating food insecurity.
Hi everyone! I hope everything is going well over on The Trail while I’m far away in Aussieland. I figured I’d share with you guys a little bit about my new friends! I’ve been hanging out with the Roos and the Wallabies constantly and they’re so darn cute I might even have to sneak one in my bag on the flight home.

Kangaroos and wallabies are marsupials which means they carry their young in built-in pouches on the body. Some other examples of marsupials include wombats, Tasmanian devils, quokkas, and koalas and they almost all live exclusively in Australia.

Kangaroos are much larger than wallabies and have longer legs which gives them the speed advantage. Wallabies generally only get about one or two feet tall whereas kangaroos can reach up to 8 feet and weigh as much as 200 pounds.

Another difference is their coloring. Wallabies can have two or three colors in their coat and the colors are usually brighter. Kangaroos, on the other hand, tend to have just one, very muted color like brown or grey.

There are more kangaroos...

and wallabies in Australia than there are people, making them almost a pest (but they are definitely too cute to be called that). Their presence is probably equivalent to deer back at home. Much like deer, they are often hunted and sold for their fur and meat, as you can find Kangaroo burgers and steak all around Australia.

While kangaroo and wallaby populations soar, their habitat is threatened by the huge amount of bushfires Australia experiences. This number is only going to increase as climate change continues and very dry terrain gets even drier. The number of bushfires per week in Australia has already increased by 40% from 2008 to 2013.

In an attempt to prevent bushfires, controlled burnings of the forest are implemented. Australia is covered in eucalyptus trees which are very flammable and even become explosive because of the oil they contain. By burning the excess leaves and branches on the forest floor, it gets rid of some of that sitting-duck fuel that would increase the severity of a future bushfire.
Some fun facts I’ve learned from living here:

- Kangaroos like their necks scratched.
- I met an Australian girl whose best friend has a pet kangaroo named Sakura.
- Although kangaroos do hop, when they’re just walking around normally they do a kind of slow crawl on their hands and feet that is actually pretty creepy.
- Kangaroos and wallabies are just bouncy dogs, they’ll come right up to you and eat out of your hand.
- You can buy kangaroo fur or feet which are pretty normal things to sell, HOWEVER, you can also buy something else pretty odd…..to be scientific, kangaroo testicles! If you’re asking yourself “Why Australia, why would you sell this?” please get in line because I ask the same question.

Works Cited


As I boarded the bus that morning, I hoped that my vague memory of the directions and my conversational grasp of Spanish would guide me to the farm. If I could successfully navigate the rural Alajuela Province of Costa Rica, I would be working for a week on a small cacao and coffee farm in exchange for food and a place to sleep. With equal chances of making it to my destination and getting completely lost, I felt my love for adventure drawing me towards the unknown. I handed the driver my ticket and sat down to watch through the window as city streets turned into luscious rolling hills and magnificent volcanoes.

Seven hours and two bus rides later, I stood on the side of a dirt road wearing my backpack and rubber boots. May and June mark the beginning of the winter wet season in Costa Rica, or ‘el invierno’, which brings over five feet of rain to the Northern Pacific Coast. The periodic and brief spells of rain decrease rates of tourism but provide necessary moisture for farm fields and forest ecosystems. In 2015, tourism and agriculture made up 5.8% and 5.5% of the Costa Rican GDP respectively.

I had taken the local bus out of Aguas Claras that heads out onto rural roads where farms and pastures blanket the landscape. Now on the side of the road, not completely grounded in my sense of direction, I decided to walk up a dirt path that divided a pasture of cows from several rows of banana trees. I felt simultaneously very lost and very content,
though I eventually heard and saw a pack of dogs at the top of the hill. I remembered my host mentioning the dogs, but as seven of them ran down the hill barking away, I wondered if I should be concerned...

The dogs jumped onto me and insisted on licking me to determine whether I was friend or foe. I was grateful for their approval and continued up the hill towards the two men who had stopped their work repairing a motorcycle to watch my encounter with the dogs. When I reached them, I introduced myself and met Moisés and Alex. The host and owner of the farm, Deepa, would not be there for the duration of my stay. As she remains the only English-speaker of the group, I was left to communicate with my Spanish to get to know Moisés and Alex, while also taking instructions on tasks to complete.

A short tour of the farm familiarized me with the two bunk houses, the kitchen, the communal fire pit, and the various permaculture plots and analog forests. Permaculture refers to the practice of “conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems.” These systems focus on the greater interdependency and exchange between biotic and abiotic components rather than a narrow perspective on the human-desired crop or yield of individual plants. Analog forests take permaculture a step further, by prioritizing the growth of biodiversity and the minimization of external inputs. Analog forests can shift over time from a focus on providing for the forester to an eventual self-sustaining ecosystem of plant and animal species that reclaim the land.

I spent the week helping out around the farm, practicing Spanish, and joining Moisés and Alex to play soccer or ‘fútbol’ with locals every day after work. One day we harvested cacao and used machetes to cut open the pods and remove the beans. The beans are then fermented and dried to be processed into cacao powder, the primary ingredient in chocolate. Another day I planted a bed of celery (‘apio verde’), carrots (‘zanaorías’), onions (‘cebollas’), and mustard greens (‘mostaza’), which will be harvested and reseeded throughout the season.
One of the most interesting tasks came in the form of redirecting a nearby stream to decrease erosion and to power a mechanical hydroelectric generator. There was no electricity on the farm, but the generator could provide necessary power in the case of an emergency. After working in the stream all day, we walked a couple of miles to a nearby waterfall, where I finally understood the name of the nearby town, Aguas Claras or “Clear Waters”.

Our farm sat on the side of Rincon de la Vieja, one of six active volcanoes in Costa Rica. Across the valley lay Miravalles, one of sixty-one inactive volcanoes. One Saturday, Moisés told me we were going to visit his hometown Upala, which sits on the side of Miravalles. We went to two different swimming holes and to the ranch where his mother works. There I was introduced to the herd of buffalo, the barn of pigs, and the two horses which we rode around the ranch!

Throughout the duration of my stay, Moisés and Alex showed me so many techniques, places, and perspectives on this type of scale farming in Costa Rica. After all, the two of them, age 21 and age 23, hold down the entire operation while Deepa is away. I came away from the time on the farm with a new perspective on the beauty of rural Costa Rica, in addition to a deep appreciation for the hard work and unpredictable conditions that face farmers and ranchers across the country. I hope to return to Moisés and Alex in the future, with the intention of spending several months through the changing seasons on the farm.

Works Cited
For Me...

Drawing by Marissa Guzik
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2:29pm
By Anna Forsman

Last breath of July
Sunlight still alive
I leave myself behind

To ask
If it is only me
Who sleeps in trees
My memories
Recount to me
The vacancy
Of Earth’s purest spot.

Our hearts have chambers like rooms
Unseen, unglued

My greatest clue
How I get through

Is to Breathe in the Sky.

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**A parting piece of wisdom from George F. Clark:**
“There are no empty Tabasco bottles...”