



# THE ENVIRONMENTAL EAGLE

## The Sustainability Newsletter of Boston College

May 2019

### FEATURED

**Green Week Welcomes Sylvia Earle & Embraces All Things Blue**

**Sylvia Earle Warns Against the Dangers of Industrial Fishing**

**Sustainability LLC Embraces New Leadership in Coming Year**

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Several FRESH to Table BC Dining staff members prepare samples of monkfish, an underutilized fish species from local waters, at the Green Week Earth Day Fair.



Sylvia Earle receives a private tour of campus from members of EcoPledge.

## “The World is Blue”—Sylvia Earle Ushers in Green Week 2019

By Chris Joseph

This year, Green Week turned blue. EcoPledge’s annual week-long tradition took on an ocean theme as the club coordinated with groups across campus to organize events promoting awareness of marine environmental issues.

The series of events included a panel on sea level rise, a prize-fueled trivia night, and a sustainable seafood cooking class. The stand-out event, however, was a keynote speech by world-renowned oceanographer Sylvia Earle.

Earle, now 83, is one of the most accomplished marine biologists and underwater explorers in history. Earle reached national prominence in 1970 when she was chosen to lead the first all-female team of aquanauts at an underwater laboratory called the Tektite Habitat. Earle’s career skyrocketed from

there, leading her to become the first female Chief Scientist of the National Oceanic and Atmospheric Association (NOAA) in 1990. Today, Earle is one of the foremost ocean conservationists at work protecting the blue planet.

Earle began Green Week on April 8 with a keynote speech titled “The World is Blue.” In her presentation, Earle testified personally to the effects of human activity on the oceans. Through her many decades of underwater work, Earle has borne witness to the deleterious effects of overfishing and ocean acidification at locations around the world.

Despite her harrowing testimony, Earle concluded her presentation with a hopeful message. Earle now advocates for the creation of robust ocean conservation zones around the world. Earle calls these

*See “GREEN WEEK” page 2*

## Fishing for Hope: Earle Speaks Against Threat of Industrial Fishing

By Alex Capozziello

TIME magazine’s first “Hero for the Planet,” former Chief Scientist of the National Oceanic and Atmospheric Association (NOAA) and National Geographic Explorer-in-Residence Sylvia Earle visited Boston College for Green Week to discuss the urgency of protecting the ocean in response to accelerating climate change.

“Most of life on Earth lives in the dark,” Earle said. “You go below where divers go, a hundred feet, go down a thousand feet and it’s dark, essentially all the time. And that’s the biggest living space on the planet. We are the odd

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## Green Week Turns Blue as Earle Shifts Conversation to Ocean Preservation

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areas “Hope Spots.” The argument for these marine protections is similar to the argument for national park protections on land. Earle believes that protecting marine life in crucial zones may afford the oceans a chance to recover.

Chris Russo, EcoPledge president and CSOM '19, commented on the significance of Earle's visit to Boston College.

“It was an absolute honor to host Sylvia Earle on campus for Green Week,” Russo said. “With the theme of ‘Our Blue Planet,’ which highlighted the importance of our oceans, there is no better person to speak to ocean conservation than Dr. Earle.”

Earle also visited with students and attended several environmental science classes during her day at BC.

“She was extremely thoughtful and inspiring during our conversations,” Russo said. “She truly cares about every living creature on this earth. I’ll never forget how she stopped in the middle of campus several times to pick up earthworms and return them back to the soil.”

Green Week continued on Tuesday with an Environmental Studies department panel on climate adaptation in Boston and a

trivia night co-hosted by CAB. On Wednesday, EcoPledge hosted a screening of *Mission Blue*, a feature documentary about the life of Sylvia Earle. On Thursday, EcoPledge collaborated with BC Dining Services and Real Food to host a seafood cooking class in Lyons Dining Hall.

Green Week concluded on Friday with the annual Earth Day Fair, co-organized by the Undergraduate Government of Boston College (UGBC). Environmental clubs and organizations from BC and beyond appeared on Stokes Lawn to promote sustainability and environmental awareness. The fair included Ben & Jerry's, Sea Semester, Daily Table Grocery Store, Eating with the Ecosystem, and the BC Office of Sustainability, among others. The final event was complemented by beautiful weather and a strong student turnout.

Green Week 2019 marked an incredible milestone for Boston College's largest student sustainability club. Russo noted the significance of the moment and commended his fellow club members on their accomplishment.

“I am so proud to be at the helm of it, working alongside some of the most passionate students on campus,” Russo said. “This was the biggest week of events EcoPledge has ever done.”



**Top:** Sylvia Earle poses for a photo-op with EcoPledge after a lunch Q & A. **Bottom:** Several BC Dining Sustainability Interns tabling at the Earth Day Fair.

## Earle Stresses Industrial Fishing's Catastrophic Effects on Ocean Ecosystems

*“EARLE” from page 1*

ones. We think this is normal, but it isn't—not for life on Earth, because most of it is down there ... We have a distorted view of what life on Earth really is.”

Earle is the founder of *Mission Blue: The Sylvia Earle Alliance*. Part of the organization's goal is to protect 20 percent of the ocean by 2020 as “Hope Spots,” which Earle defines as ecologically significant areas of the ocean designated for protection and conservation. According to Earle, 20 percent is just a good start.

“We have made progress, but not nearly enough,” Earle said. “Climate scientists are saying the next ten years will be make or break, so we need to take that into serious account instead of saying ‘well maybe I’ll get around to doing whatever someday.’ The someday is now ... There’s never been a more important time, and may never come again.”

Aside from climate change, Earle believes the biggest threat to the ocean is industrial fishing. As Chief Scientist of NOAA from 1990 to 1992, she witnessed first-hand the overfishing crisis

on several species—including the Bluefin tuna. Earle recalled a Northeastern Fisheries Council Meeting where she learned that in the two decades prior to 1990, populations of Bluefin tuna in the North Atlantic plummeted by 90 percent. Since 1970, global populations have dropped to a mere three percent.

“Imagine if in a matter of a few decades the human population went down to ten percent, let alone three percent,” Earle said. “Would we be worried?”

Human consumption of fish, like tuna, is unsustainable.

According to Earle, there is no excess in nature. To produce a single pound of Bluefin meat, a tuna needs to mature for at least ten years in the wild and consume tens of thousands of microscopic photosynthesizers and animals along the food chain.

“The creatures we casually consume or roll over in terms of making space for us—we should show greater respect, because we are here because of them,” Earle said. “And if we don’t respect them, we won’t be here for much

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longer, that's pretty clear. We are already disrupting the basic elements that make Earth a special place. It isn't the rocks and water but the life that's here that makes Earth habitable for humans."

Species like the Bluefin are being fished beyond their sustainable yield, which is the amount of individuals that can be fished while also maintaining species population over time. While the Bluefin takes ten years to mature, other species, like the Patagonian Toothfish, Earle mentioned, take twenty years to mature. Other species can take up to thirty years, making sustainable yields important to consider before removing these species from the ocean.

"People who say, 'Oh, I understand fish populations are really in serious trouble, but I think I'll order the tuna, or I'll go for the halibut, or the popcorn shrimp' ... But if you really like them, you won't eat them—you'll leave them in the ocean and you'll get others to appreciate that too," Earle said.

According to Earle, as long as there is a taste and market for fish, coupled with the mindset that there will always be more, species will continue to be in danger of being overfished. She hopes that if people start to think about fish and other ocean life as something other than seafood, then maybe this idea of "what can we take out of the ocean" will cease to exist.

"The most important thing we take out of the ocean is our existence," Earle said.

According to Earle, one



Left: Earle and several BC faculty and students enjoy an ocean-themed dinner. Right: Earle and a student pose for a photo.



reason consumers are unaware of overfishing is the misleading information from the agencies and industries that control industrial fishing.

"Scientists, they ask you to come presumably because of what you know ... But in fact, they want you to be a voice for what that agency has decided is policy—and in respect to fish, it's more about fisheries than it is about fish," Earle said.

According to Earle, speaking the truth and gathering accurate evidence to communicate to the public are both crucial in saving ocean biodiversity from interest groups seeking to benefit industry over fish themselves.

"They don't want to hear the truth. They don't want to hear that their numbers are phony. They want you to say, to justify, doing what they're doing based on what the commercial interests want."

After attending the North-

eastern Fisheries Council Meeting at the beginning of her tenure as the Chief Scientist at NOAA, where Earle spoke up in defense of Bluefin tuna being overfished, she was branded the "Sturgeon General."

"They started calling me the 'Sturgeon General,' Earle said. "I thought, somebody has to say it the way it is."

Earle advised that the best way to deal with those who sit in the pocket of industry is to ignore them, and speak the truth despite their deception.

"Just speak the truth," Earle said. "That's the most painful thing you can do to somebody like that is ignore them. And do the right thing ... Point to the evidence—it's the best way to counter the disinformation, the lies, the exaggerations, is to speak the truth."

In regards to climate change, industrial fishing, and nearly

every other environmental issue facing the world today, the same message applies: every action starts with one person. However, nothing can be accomplished alone.

"A lot of this depends on individuals and critical mass—enough people begin to understand and move in a direction—that's really what it takes," Earle said. "You need to get people on board to understand why, and then to not just know but to do—to move in the right direction."

That said, Earle wanted to leave BC students with a message of hope.

"Realize your power," Earle began. "Don't for a moment think that you don't make a difference, because inaction is making a difference. Everybody counts ... Everything starts with somebody doing something. Figure out what you really feel strongly about, and go for it."

## Sustainability LLC Turns New Leaf as it Welcomes New Community Director

By Maryana Dumalska

The Sustainability Living & Learning Community (LLC) is in the midst of a large transition as it welcomes Samantha Gordon, the new Associate Director of Residential Leadership and Learning.

The LLC welcomes its new director after being relocated to

2000 Comm. Ave this past fall and lacking leadership for several months. Gordon will oversee the LLC by developing its operational framework, coordinating the student selection process, managing the budget, and implementing assessment techniques.

While the LLC will be offered again this fall, the associated

seminar component will be withdrawn as part of an effort across all LLCs to be more consistent. In the future, however, Gordon hopes to have the seminar added back into the program.

According to Gordon, her goal for the summer is to plan next year's programming. The Sustainability LLC's structure will be

more established come August.

The program was initiated five years ago alongside a one-credit seminar called "Thinking About Sustainability," which was instituted as part of the Cross Currents Initiative. The initiative sought to integrate the course into

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the LLC and provide an academic focus. Building on this motive, the program later expanded to include other optional courses including

the three-credit course “Sustaining the Biosphere.” In addition to incorporating academics into residence halls, the LLC also seeks to integrate sustainability-related events into

the curriculum. In the past, these events have included apple picking, exploring the Boston Harbor Islands, visiting the Boston Science Museum, and kayaking on the Charles River. These integrat-

ed events and courses enhance the program and create an environment conducive to sustainability-oriented conversation among environmentally conscious students.

## EcoPledge Annual Plate Collection Encourages Student Sustainability

By Catriona Sullivan

Members of EcoPledge knocked on the doors of students living in the Mods, Walsh, Stayer, Vanderslice, and on Upper Campus to collect unreturned plates and silverware to BC Dining on Sunday, March 31. For the third year, the event has aided BC Dining in its effort to encourage responsible use of the reusable flatware options in the dining halls.

Plate and silverware numbers dwindle as the semester draws to a close, forcing dining halls to increase their use of non-renewables. By collecting and returning plates and silverware to BC Dining, EcoPledge hopes to reduce the use of non-renewables in the dining halls.

BC Dining equipped the club members with carts to bring around the dorms to make the collection process more streamlined. In all, the collection garnered optimistic results, with a total of 99 plates, 46 bowls, 52 pieces of silverware, and 3 saucers returned to BC Dining.

“The annual EcoPledge plate collection is our way of helping BC Dining sustain their use of reusable plates and silverware,” said EcoPledge member Chris Joseph, MCAS ’19. “When we return plates and silverware to the dining hall, we avoid the need for wasteful papers and plastics. The event is also a great opportunity to show the strength of our volunteer corps on campus.”



Members of EcoPledge pose with over a hundred plates and bowls before returning them to BC Dining to be cleaned and recirculated to students.

OPINION PIECE

## A Global Spotlight on Air Travel: Fly Less, Curb Climate Change

By Alinda Dersjant

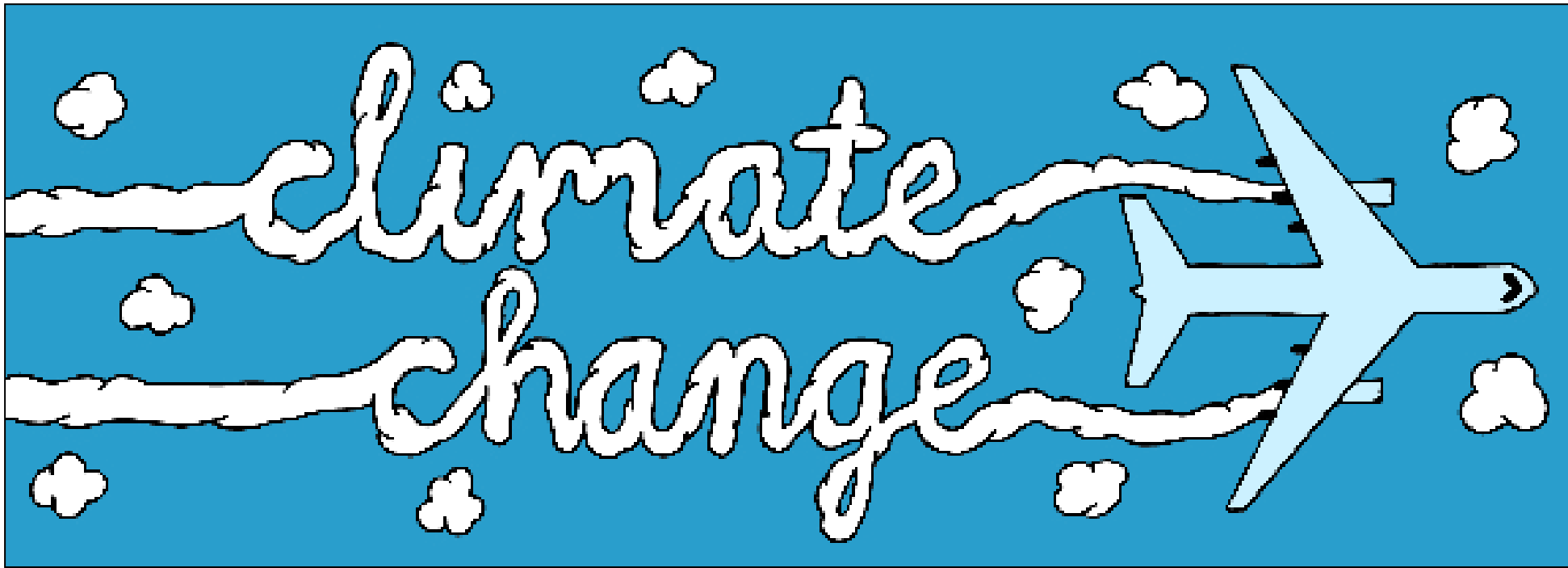
One return flight from Boston to Los Angeles emits over six times the amount of carbon dioxide that an average Ethiopian citizen emits each year, according to World Da-

tabank statistics. While many might not think twice before hopping on a commercial flight, the continued growth of the air travel sector pushes more CO<sub>2</sub> into the atmosphere each day and further fuels global climate change.

The immense CO<sub>2</sub> emissions from aviation emitted into the high atmosphere are far more destructive than CO<sub>2</sub> emitted at sea level. This is because carbon dioxide triggers several chemical reactions with compounds found in the upper atmo-

sphere, which have a net warming effect. The Washington Post reports that even without taking these extra damaging effects into account, the average American can reduce his

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Graphic by Alinda Dersjant



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or her carbon footprint by roughly a third by choosing not to take an international flight from the West Coast to Europe.

Short-distance flights have an even more severe environmental footprint per mile per passenger. Takeoff, landing, and changes in altitude require exponentially more kerosene than cruising at a consistent, high altitude during the duration of the flight. Layover flights therefore have a substantially larger environmental impact than direct flights. The exact amount of additional emissions depends on several factors, but according to the travel agency Go Green Travel Green, up to 50 percent of the emissions of a flight are emitted during takeoff and landing. This indicates the substantial difference an extra layover makes.

According to National Geographic, over 80 percent of the world population has never set a foot on an airplane. Nonetheless, climate change will affect everyone—including those who rarely contribute to the problem. In fact, people in poor communities and the those living in third-world countries are affected more severely by climate change. These people have fewer means to protect themselves and live in high-risk areas, and as a result are less resilient.

One problem is that the price of an airplane ticket does not reflect the externality of its environmental cost. Currently, the European Parliament is discussing the introduction of an extra flight tax which would make consumers pay an additional fee for environmental damages incurred via air travel. However, progress is slow. For example, the Netherlands introduced a small flight tax in 2008, only to get rid of it again a year later as the environmental benefits and revenue seemed minimal. Major Dutch airline KLM Royal Dutch Airlines was also afraid of losing customers due to the increased cost.

The International Civil Organization of Aviation (ICAO) made progress in 2016 by passing the Carbon Offsetting and Reduction

Scheme for International Aviation (CORSIA), an international pact that only allows carbon-neutral growth in aviation from 2020 onwards. Yet even here, one major obstacle remains—countries are afraid to take the first step. In the absence of an international flight tax, travelers who are flexible in their destination can avoid paying national flight taxes by flying to destinations that do not charge a flight tax.

Some progress can also come from aviation agencies themselves. Several agencies have begun taking steps toward more sustainable air travel means by switching partially to biofuel, improving the fuel-efficiency of the fleet, minimizing the load that is taken onto the plane, and investing in carbon-offset programs. Despite these green changes in the right direction, technology has not yet advanced enough to create a commercial aircraft that can use renewable energy transported in its batteries to fuel the motors.

That said, power ultimately lies in the hands of the consumer. For the sake of the environment, global citizens should consider the environmental impact of air travel before hopping on another plane. Instead of flying, what about using a train or bus? Are there any vacation destinations that can be reached by car, boat, or train? If not, is there a vacation destination only a short flight away? For professional work meetings, what about setting up a video-conference rather than flying across the country for an in-person meeting?

Frequent flyers can also choose more environmentally-conscious options like flying non-stop, or flying economy-class rather than economy-comfort or business-class.

Being aware of the impacts of air travel is the first step toward actively adapting more sustainable travelling habits. Spreading the word is the second step. Before choosing to set foot on an airplane, consider whether the trip is worth creating a carbon emission equivalent that exceeds the annual emissions of the average Ethiopian citizen. It's time to take care of our common home.

## Global Spotlight Theme Recap: "Think Globally, Act Locally"

By Mira Begovic

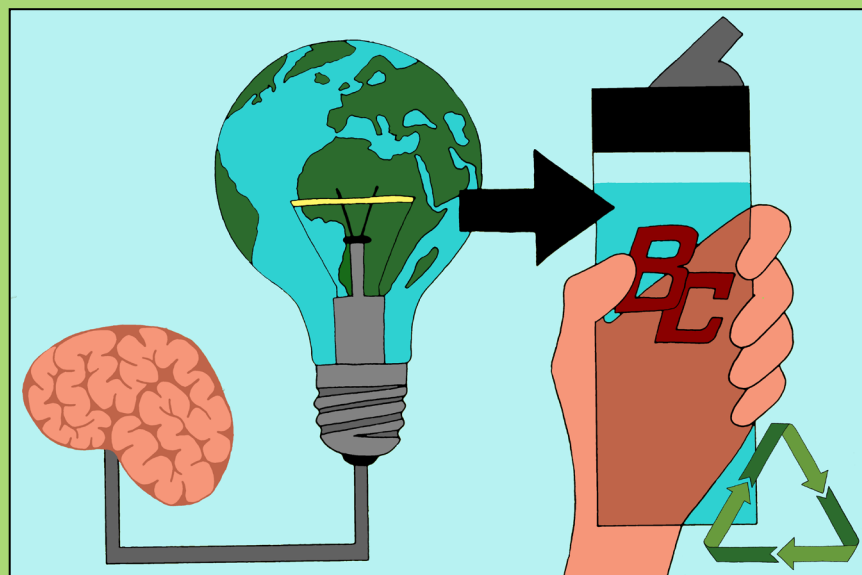
EcoPledge's theme this past year encouraged the Boston College community to "Think Globally and Act Locally." In the newsletter, EcoPledge members have made an effort to shed light on global attempts to address climate change and to illuminate the struggles that people around the world are facing as a result of rising temperatures and changing weather.

The Outreach committee chose to focus on three separate regions of the world across the three seasons of the academic calendar year: Eurasia for Fall, Africa and Australia for Winter, and the Americas for Spring. Some major events covered included sustainable fishing infrastructure in Copenhagen, new green technology in Great Britain, a highlight of Singapore as Asia's greenest city, and India struggling

from over population and pollution.

The team sought to educate the broader BC community in hopes of inspiring students to learn about the very real impacts of climate change. In addition to highlighting global events, the newsletter has continued to cover local events related to climate change to notify students of the local impacts of climate change and opportunities for getting involved. Some of these events included panels with esteemed faculty members, a presentation by Sylvia Earle, volunteering efforts at Revere Beach, and regular updates on the Bare Pond vernal pool.

This was one of the largest years yet for the club and it was exciting to see so much engagement from the community. EcoPledge hopes to continue this momentum into the future and inspire new movements toward a greener future.



Graphic by Alinda Dersjant



## Peace and Trees: A Farewell Letter from the President to Our Seniors

By Chris Russo

It's been a great four years with EcoPledge. I've seen the club grow from just eight members to over fifty. Now, EcoPledge has become a household name on campus. We've made more efforts on campus than ever before, collaborating with groups like BC Dining, Real Food, the Office of Sustainability, and many others to bring sustainability to the forefront of the conversation at Boston College. It was surreal to coordinate Dr. Sylvia Earle's appearance on campus and meet her, as this was the biggest event EcoPledge has ever held.

Two years ago, fellow EcoPledge member Chris Joseph, MCAS '19, and I created this newsletter to help disseminate environmental news on campus, shine light on issues, and spark conversations about change. I've received several emails over the course of the last couple of years from students, faculty, and staff who enjoy reading this newsletter. Many have brought to my attention various issues regarding sustainability on campus, which EcoPledge has helped to address. It is great to see that this newsletter is causing tangible change, and continues to grow under new leadership.

EcoPledge also created a new volunteer and activism branch to expand our efforts beyond campus and engage with the local Boston community. This group of passionate individuals has gone above and beyond to make change. They have gone on many beach and river cleanups, dedicating entire days of their weekend to the cause. The group also attended the Youth Climate Strike at the Massachusetts State House just last month, showing the impor-

tance of political activism and standing alongside fellow environmentalists.

I'd like to thank several people that I've worked with over the years for being sustainability advocates on campus. These include Beth Emery, Megan O'Neill, Juli Stelmaszyk, Bruce Dixon, Tara Pisani Gareau, and Phil Landrigan, just to name a few. These individuals have not only been indispensable in helping move BC toward greater sustainability, but I am also happy to now call many of them personal friends of mine.

I would also like to thank EcoPledge's other graduating seniors for all of their hard work and dedication over the past four years. Mira Begovic, CSOM '19, Luly Dickinson, CSOM '19, Chris Joseph, MCAS '19, and Kelsey Kosten, CSOM '19, have all been crucial members of EcoPledge whose contributions have benefited the club greatly.

EcoPledge has never been better, and it's been my great pleasure to help play my part in getting it to where it is today. Looking forward, I'm excited to pass the baton to Ellen Kang, MCAS '20, and Stevie Walker, MCAS '21, next year's EcoPledge co-presidents. They plan on continuing EcoPledge's efforts, focusing even more on our activism. They also hope to better connect with club alumni as well as other universities in the area to foster further conversations about sustainability.

When I was a freshman, I was taught by the then-EcoPledge president a certain way to say goodbye. Four years later, this is my last official use of it.

Peace and Trees,  
Chris Russo



Members of EcoPledge's Outreach Committee pose for a photo together at formal.



Above: Several photos from EcoPledge's senior send-off formal, including a shot of the five graduating seniors together one last time before commencement.