

explorations

GEORGE H. COOK CAMPUS MAGAZINE | SPRING 2018



RUTGERS

School of Environmental
and Biological Sciences

A photograph of Deba Dutta, Chancellor of Rutgers University–New Brunswick, standing in a wooden doorway. He is wearing a dark suit, a red tie, and glasses, and is smiling. The background shows the interior of a wooden structure, possibly a barn or a workshop, with a white door frame visible on the right.

Deba Dutta
Chancellor Rutgers University–New Brunswick

“Great universities produce great alumni. I am proud to lead this great university because of the profound impact our alums make across the world and here in New Jersey. I am regularly inspired by their passion for their communities and I sincerely hope they will continue to engage with ours at Rutgers University–New Brunswick. ”

As chancellor of Rutgers University–New Brunswick, the university flagship, Dutta oversees an internationally renowned research institution with more than 50,000 students, 4,000 faculty, 17 degree-granting schools, and 175 research centers. Dutta believes that as New Jersey’s premier public university, Rutgers should apply its outstanding academic strengths in service of the public good to ensure access to educational opportunities.

CONTENTS

01 EXECUTIVE DEAN'S MESSAGE

02 **THANK YOU!** With Isaac Alejo Reyes and Sara Faghani

03 **FEATURE** Cook Cattle: Evolving Along with New Jersey's Needs • Beyond the Farm

07 **STUDENTS** Two Graduates, One EOF Family
Seniors Claressa Lopez and Siddharth Raut share their stories

09 **FACULTY** Real-World research: Sustainable Fishing and Population Management • Breakfast After the Bell

13 **RESEARCH** Understanding the Pollinator Population • Coral and Climate

15 **FEATURE** In Their Own Words with Rick Ludescher and Laura Lawson • Meet the Academic Deans • Bon Voyage Lee Schneider

19 **ALUMNI** Fast Track, Featuring Young Alumni on the Move

21 **DONORS** Michael Graziano, Pride and Support

23 ALUMNI NOTES AND MUSINGS

.....

EDITORIAL OFFICE

Rutgers, The State University of New Jersey
57 US Highway 1, New Brunswick, NJ 08901-8554

EXECUTIVE DEAN OF AGRICULTURE AND NATURAL RESOURCES

Robert M. Goodman

VICE DEAN FOR ADVANCEMENT

Melissa McKillip

OFFICE OF ALUMNI AND COMMUNITY ENGAGEMENT

OFFICE OF COMMUNICATIONS AND MARKETING

Michael Green, Director

OFFICE OF PHILANTHROPY AND STRATEGIC PARTNERSHIPS

Melissa McKillip, Associate Dean

CONTRIBUTORS

Yolanda Carden, Moira Keihm, Melissa Kvidahl Reilly, Paula Walcott-Quintin, and Phil Wisneski.

GRAPHIC DESIGNER

Lori Nardoza

PHOTOGRAPHERS

Roy Groething, Nick Romanenko, and John O'Boyle.

.....

On the Cover: Brenda Robles SEBS'19, Chancellor Deba Dutta feeding baby lamb 'Bonsai' as Nicole Dymko SEBS'20 holds him. Photography by Nick Romanenko. **Inside Cover:** Photography by Nick Romanenko. **Table of Contents:** Photograph courtesy of Aubrey Weibel and Photography by Roy Groething.



STAY CONNECTED

Help us keep you up to date. Have you moved?
E-mail your new address to
discovery@sebs.rutgers.edu,
and we will add you to our distribution list.

.....

post-it!

What's up with you? We want to hear from you.



alumni@sebs.rutgers.edu



Office of Alumni and Community Engagement
Rutgers, The State University of New Jersey
57 US Highway 1
New Brunswick, NJ 08901-8554

Please include your name, school, class,
mailing address, email, and phone number.

.....

Read All About Us

Newsroom

sebsnjaesnews.rutgers.edu

Newsletter

discovery.rutgers.edu/pubs

Follow Us





ROBERT M. GOODMAN
EXECUTIVE DEAN,
SCHOOL OF ENVIRONMENTAL AND
BIOLOGICAL SCIENCES

Dear friends,

For close to a year now, Rutgers University–New Brunswick has had the good fortune to be led by Chancellor Debasish (“Deba”) Dutta, who began his tenure on July 1. Chancellor Dutta received his undergraduate education in his native India and came to the U.S. to study for a doctoral degree in industrial engineering at Purdue University. His career trajectory includes several faculty and administrative positions that have made him uniquely qualified to lead Rutgers–New Brunswick, the land-grant institution of New Jersey. He’s been an enthusiastic advocate, embedding himself into the life of the school and campus, and invigorating the interconnected educational and service missions we strive for.

Our faculty members continue to make a difference, as affirmed by recent external and internal awards that bring prestige to both the recipients and Rutgers, your alma mater. For example, Paul Falkowski, distinguished professor in the departments of Earth and Planetary Sciences and Marine and Coastal Sciences, was awarded the 2018 Tyler Prize for Environmental Achievement—often described as the Nobel Prize for the environment—for his leadership in understanding and communicating the impacts of human activities on the global climate. Falkowski, who is also the founding director of the Rutgers Energy Institute, is highly regarded as one of the world’s greatest pioneers in the field of biological oceanography.

Peter Kahn, professor in the Department of Biochemistry and Microbiology, was recognized with the university’s 2018 Clement A. Price Human Dignity Award in recognition for “distinguished leadership for over 40 years advancing social responsibility and forging intercultural collaborations, including the global Bosnian Student Project.” Kahn, a member of the faculty since 1976, served as the local coordinator for the Bosnian Student Project, a volunteer relief effort that placed students—whose education had been disrupted by the wars in the former Yugoslavia—in high schools and colleges throughout the U.S., including 17 at Rutgers. The university provided tuition scholarships while Kahn, with help from colleagues, raised funds to cover all other expenses, plus found host families. For this extraordinary act of humanity, Kahn has won the lasting admiration of his peers and the Rutgers community, and the gratitude of many young scholars from that region.

We honor the service of Rick Ludescher, dean of academic programs since 2011, who will return to full-time teaching as a professor in the Department of Food Science. We welcome Laura Lawson, most recently the dean of agriculture and urban programs since 2015, who will serve as the new academic dean, starting July 1. She remains an integral part of the faculty of the Department of Landscape Architecture.

We bid “happy retirement and fond farewell” to two longtime colleagues. Lee Schneider, assistant dean in the office of academic programs, began his Rutgers career in 1965 as an undergraduate and a football player for the Scarlet Knights. He has since helped thousands of students navigate the academic rigors of Rutgers as well as connect parents to our school as the liaison to the Cook Campus Parents’ Association. And, after a distinguished teaching career spanning more than 40 years, David Ehrenfeld has retired as a professor of biology in the Department of Ecology, Environment, and Natural Resources. To his colleagues, he is known for his “remarkable ability to establish a powerful rapport with his students and an almost conversational level of interchange in his lectures,”—even in classes of 300 students. Not surprisingly, he was selected by students for the coveted Barbara Munson Goff Teacher of the Year award in 2011.

As alumni of the school and the university, your interest and participation energize our teaching and sustain our programs at Rutgers. I hope you will remain connected and visit the teeming Rutgers University–New Brunswick campus, which has undergone quite a renaissance, especially in the last decade.

Thank you!

Isaac Alejo Reyes

ANIMAL SCIENCE, SEBS'18

“The scholarship helped me reduce my work hours and focus on academics, to reach my dream of being the first veterinarian in my family.”



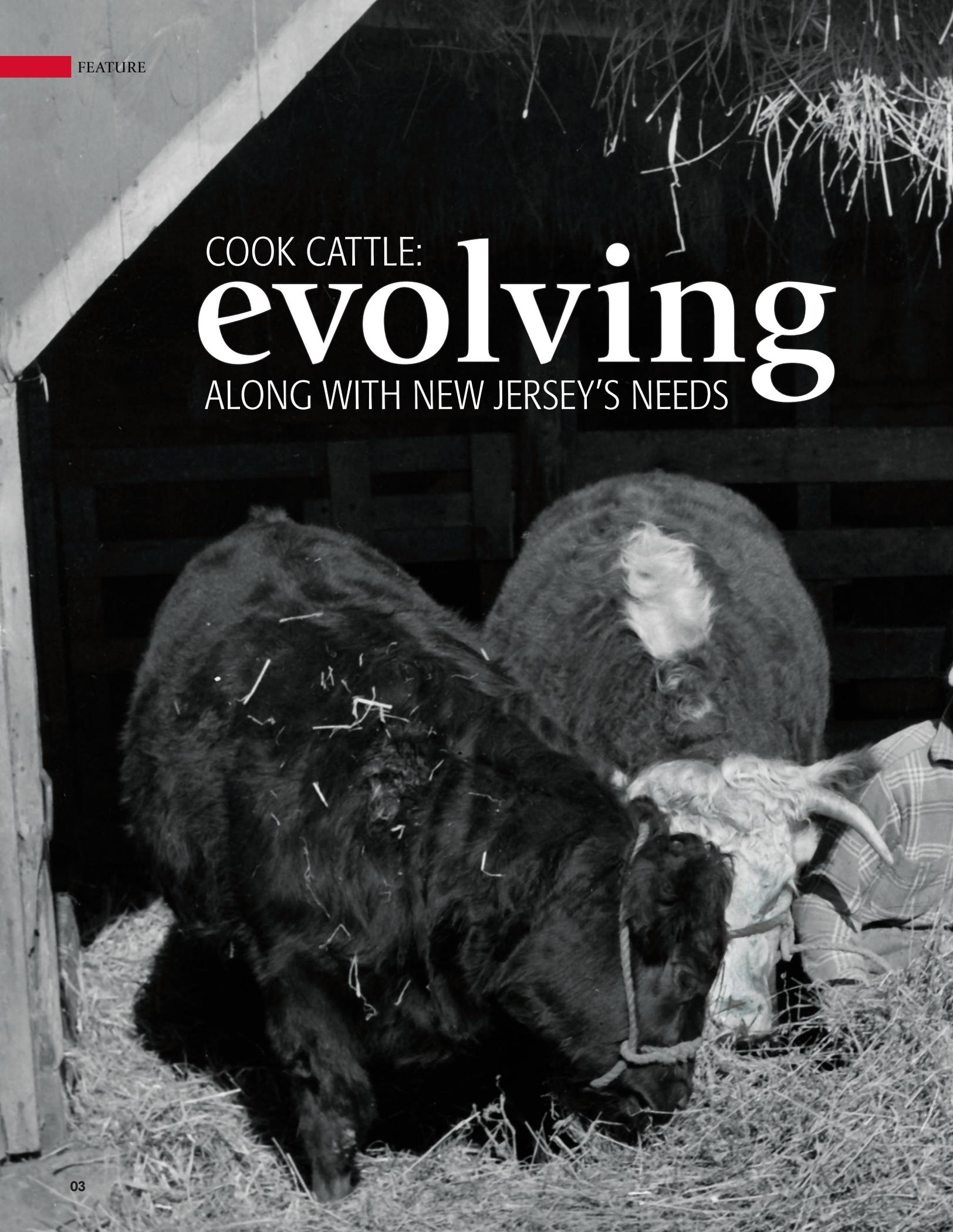
Sara Faghani

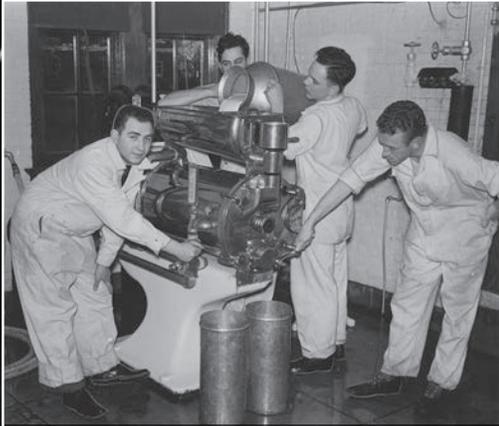
FOOD SCIENCE, SEBS'18

“The scholarship has enabled me to work towards my degree while also continuing various research pursuits, without the financial burden of taking out additional loans.”

To help support students at the School of Environmental and Biological Sciences please contact Melissa McKillip, associate dean for philanthropy and strategic partnerships, at melissa.mckillip@rutgers.edu or visit makeagift.rutgers.edu

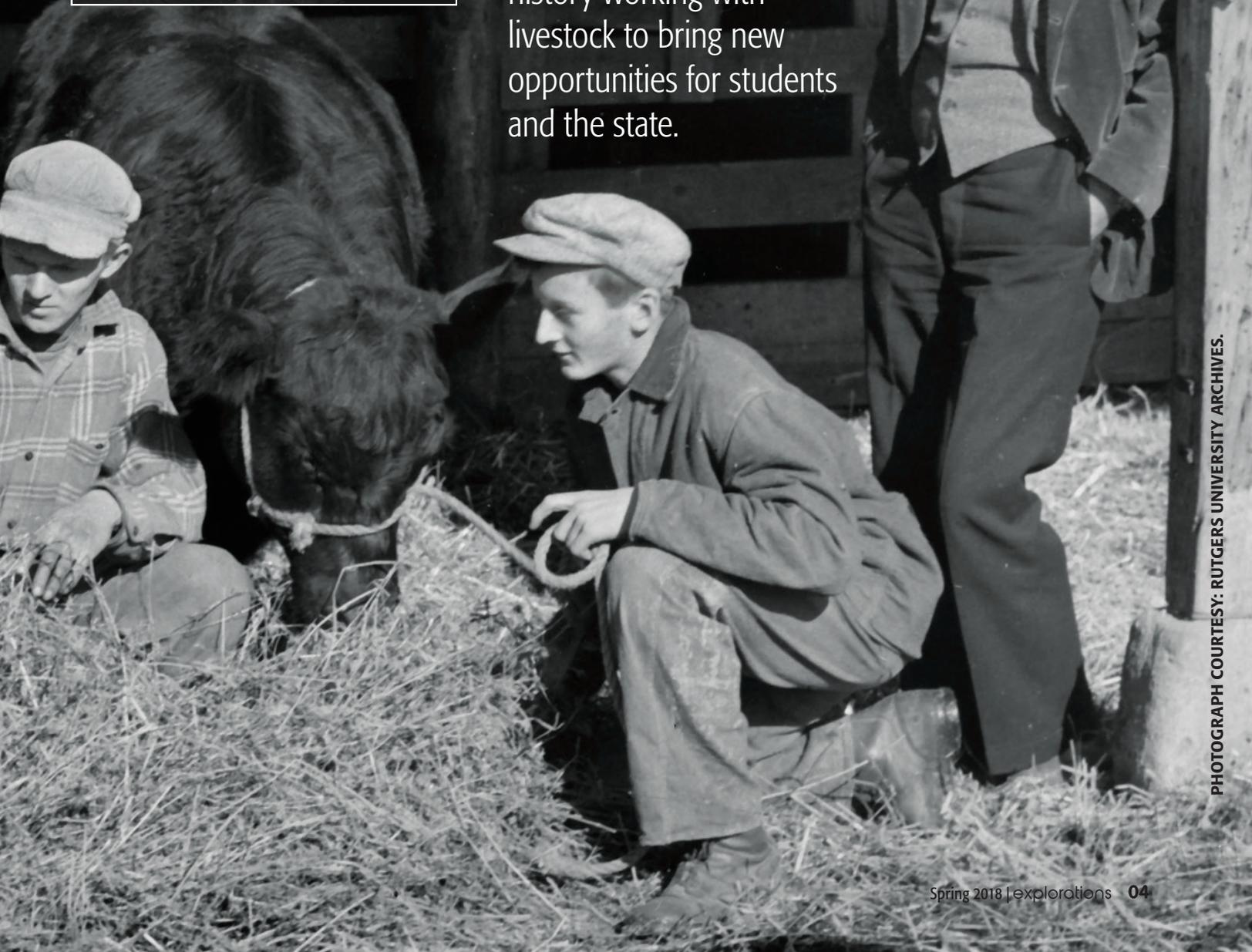
COOK CATTLE:
evolving
ALONG WITH NEW JERSEY'S NEEDS





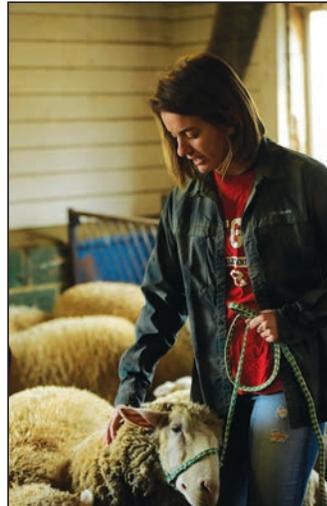
Ag Field Day 1939, students working the milking machine at the George H. Cook Campus.

The livestock scene on the George H. Cook Campus has evolved since the university's first dairy farms conducted research in the 1860s. Today, the Department of Animal Sciences builds on its history working with livestock to bring new opportunities for students and the state.



PHOTOGRAPH COURTESY: RUTGERS UNIVERSITY ARCHIVES.

Dairy | ROOTS



Pictured from top to bottom: Angus cow on Cook Farm; Madison Barbieri SEBS'19 preparing a sheep for a walk; students Sydney Gavinelli SEBS'19 and Alexander Eldridge SEBS'21 handling a cow and her week old calf Boo; Kristen Finger SEBS'19 feeding the pigs lunch; horses from the Rutgers Equine Science Center farm; and Aurora the goat saying hello at the bottom of page.



If you visited or attended classes on the George H. Cook Campus, it's likely you remember the dairy cows along College Farm Road that called the campus home. From 1970 up until 2000 there were around 40 milking cows and 25 heifers housed on campus, while from 2000 to 2017 approximately 80 to 200 Holstein heifers were cared for. And they were a huge part of the student experience for anyone studying in the Department of Animal Sciences.

The farm was, for quite some time, a research hub. A number of faculty with dairy expertise were drawn to the farm to examine topics from improving the efficiency of milk production to optimizing nutrient use, working alternative feeds, and understanding the biology of lactation. As a result, students had the unique opportunity to assist dairy staff with all aspects of care. Karyn Malinowski, now the director of the Equine Science Center, remembers being one of the first female students working with the dairy herd while pursuing her undergraduate degree in animal science. She lived in the dairy boarding house and helped care for the animals. One night, she found herself delivering a huge bull calf in the middle of the night, donning just pajamas and a robe. These kinds of stories are not uncommon for alumni of the Department of Animal Sciences who were drawn to the idea of working with livestock.

The number of dairy farms in New Jersey has decreased sharply over the years. In 1935, the state had over 6,000 dairy farms with 130,000 cows. By 1975, that number had dropped to 47,000 cows on 760 farms. Currently, there are 6,000 cows on just 79 farms in New Jersey. With this decline in dairy operations, NJAES shifted its focus from the needs of the local dairy industry to initiatives that impact first-time farmers and emerging agricultural production. SEBS in turn began utilizing its animals on the George H. Cook Campus primarily for teaching purposes rather than dairy production and research. Where does this evolution leave the dairy cows of Cook, which was once named a "Dairy of Distinction" by the Dairy Farm Beautification Program?



The animal science major is the largest at SEBS, with more than 450 students enrolled each year in one of five tracks: pre-veterinary medicine and research, laboratory animal science, equine science, production animal science, and companion animal science.

A New Focus

The truth is that you'll still see cows on the George H. Cook Campus. But today's residents aren't dairy cows; they're beef cows. "Moving to a more sustainable pasture-based program with Angus and Hereford beef cattle allows students the opportunity for hands-on learning throughout the life cycle, from breeding and calving to weaning and finishing," says Wendie Cohick, professor and chair of the Department of Animal Sciences. Current residents include four adult beef cows, four breeding-age heifers, two young cows aged 1 to 2 years, two four-month-old calves, and one calf that's just weeks old, with plans to expand the herd as the program develops. In addition to being able to interact with and learn about

cattle at all ages, students can apply farm and genetic management skills learned in the classroom to the beef herd.

Things look a little different, too. The beef cows live in the new dairy heifer facility that was built in 2000. And though the dairy cow barns are no longer in use by cattle, you'll still see them on campus, currently housing the Alpine goat breeding herd.

The new beef cattle program will continue the tradition of offering farm-fresh products to the state. But this time, instead of dairy, locals will have the opportunity to purchase Scarlet Beef. "We have developed a farm sales program with a considerable amount of student involvement to offer value-added products to the Rutgers community and the public," Cohick says. "This includes the sale of farm-raised pork; lamb; goat meat; and chicken; composted manure; and goat milk soap." The farm continues to welcome at least 25,000 visitors each year, including 4-H and Future Farmers of America students who will make up the next generation of Jersey farmers.

The beef cattle program, though still in its infancy, will also form the foundation of future translational research at SEBS. Projects like rotational grazing research and those focused on other sustainable livestock practices, will form best practices to be used by beef farmers nationwide, bringing sustainable foods from farm to table. Would the Cook community have it any other way?

According to the Association of American Veterinary Medical Colleges, almost half of those who apply to veterinary schools end up attending. At the Department of Animal Sciences about 75 percent of who apply are accepted.

BEYOND THE FARM

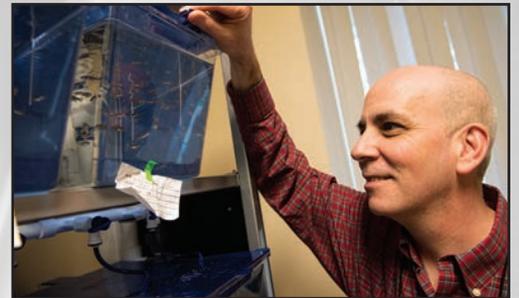


Bryn Sachdeo (Nutritional Sciences Graduate Program) examines light microscopic images of hindbrain tissue with Nicholas T. Bello (associate professor, animal science).



The Bello laboratory studies the preventative effects of red raspberry *Rubus idaeus* phytochemicals on obesity.

Research in the Department of Animal Sciences continues to address issues that affect the health and well-being of New Jersey residents. For example, scientists are beginning to understand that a predisposition to certain diseases and disorders—from infertility and obesity to diabetes, cancer, and even addiction—can start in the womb. What effect can maternal obesity have on a child's life? What about fetal alcohol exposure or the impact of exposure to chemicals like pesticides on a person's health? These questions have the potential to shape future guidelines for prenatal care, and it all starts at SEBS.



William J. Belden (associate professor, animal science), examines transgenic zebrafish.



The transgenic zebrafish line is generated as part of an NIH-funded research project designed to understand how the circadian clock and genome structure combine to impact aging.

two | one

GRADUATES | EOF FAMILY



The New Jersey Educational Opportunity Fund (EOF) provides financial assistance and support services to college students from educationally and economically disadvantaged backgrounds.

Here are just two success stories from the

CLASS OF 2018.

CLARESSA LOPEZ

Animal Science, SEBS'18

As soon as she stepped on campus during Summer Start-Up, a five-week residential program for all incoming EOF freshmen, SEBS "felt like home," recalls animal science major Claressa Lopez. On paper, the program gave her a jump-start on the vigor of college courses. But it was the empowerment and dedication she felt from the SEBS staff that left an everlasting impression. "Somehow I knew I was in the right place," she says. So she doubled down, choosing an animal science major and environmental and business economics minor. And she never looked back.

"There has been no greater of a support system for me than EOF, and I simply cannot imagine how college would have turned out for me had I not been an EOF student," Lopez says. "EOF has given me more than just financial or academic assistance; it has given me passion and a deep appreciation for my education." When times were tough, she says, she received motivation and guidance from EOF staff. Her counselors have transitioned into being her role models, friends, and family. "EOF gave me a home here at Rutgers," she says, "and I will be eternally grateful for everything this program has given me."

Following graduation, Lopez wants to put her animal science degree to work, possibly with a government agency. She's also been looking into exploring opportunities in how computer science can enhance accessibility for the visually impaired. But no matter what, the future looks bright for Lopez: "Overall, I'm just really excited to jump right into the workforce, and finally begin my life."

SIDDHARTH RAUT

Nutrition, SEBS'18

Siddharth Raut immigrated to the United States from India in 2014 with his family, to pursue his dream of becoming a dentist. But since his family was starting over in a new country, affording college was a challenge. His first year taking credits at a community college was extremely difficult, he remembers, working full-time hours while also balancing a full-time course load as a nutrition major (a decision he made once he realized the effects that diet can have on dental health). "It was extremely hectic, and I was unable to concentrate on my studies or my social life," he adds. But by his second year, he was able to join the EOF family. He cut his work hours down to part-time and, ultimately, decided to enroll at SEBS.

"While researching nutrition programs in New Jersey, I figured out that SEBS has one of the best," he says. "Moreover, the education quality, cutting-edge technology, hands-on experience, campus safety, and convenient location added to my decision." After transferring to Rutgers, EOF continued to play a role in Raut's journey.

"EOF has helped not only economically, but also has helped guide me to fulfill my dream," he says. "I would credit my EOF advisers in helping me transition from an introvert to an ambivert in an extremely crucial phase of my life. It is because of my EOF advisers' encouragement, motivation, and faith that I am on the path to achieve my goal."

Raut has been accepted to the New York University College of Dentistry and will begin classes in the fall.

REAL-WORLD RESEARCH



Christopher Free (left) and John Wiedenmann discuss model results for data-poor fisheries management.

JOHN WIEDENMANN

DEPARTMENT OF ECOLOGY, EVOLUTION, AND NATURAL RESOURCES

John Wiedenmann's research interests center around how to manage fisheries in a sustainable way. The problem is that there are two categories of fish populations: one is the data-rich category, which is well researched and well understood; the other is data-poor, meaning that researchers don't quite know how many of these fish are out there, nor do they have a lot of data on these species. "In our country, even if we can't estimate how much is there, fisheries are mandated by law to set a catch limit," Wiedenmann says. "So what do we do when we don't know much about the fish out there? How can we set an amount that we think is sustainable?"

A working group, formed shortly after the law took hold, came up with a solution. It was a scoring method, where fisheries score between 10 and 15 attributes of the fish, to determine an estimated population. The problem? "It had never been evaluated," says Wiedenmann.

So he teamed up with doctoral student Christopher Free. Free's project applied this method to data-rich populations to see how accurate it was. "The first finding was that there was no real relationship between the original method and what the stock status was," Wiedenmann says. "Second, Chris revised the method to take into account the attributes that had predictive power and reran it. That actually performed very well." Today, this new method is available online for fisheries looking to achieve more sustainable catch limits.

CHRISTOPHER FREE

DOCTORAL CANDIDATE IN THE DEPARTMENT OF MARINE AND COASTAL SCIENCES

A doctoral candidate and NMFS-Sea Grant Population Dynamics Fellow, Christopher Free's research interests lie in how quantitative and interdisciplinary methods can provide solutions for aquatic conservation. So it was only natural that he turned his attention to the current challenge facing fisheries: how to handle data-poor populations. "It's a cool area of study because the majority of the world's fisheries are data-limited, and it's an intriguing problem to figure out how to manage fisheries given the data realities," he says. "In some ways, I think you can get more bang for your buck in making a difference in sustainable fisheries by working in these scenarios where there's limited data as opposed to lots of it."

Free's project holds value for a number of areas. First, it brings value to sustainability initiatives that need a better method for predicting populations. Secondly, because Free made his method public via a web application and computer program, his findings will directly impact fishery managers looking for a better way.

This project also held value for Free himself: "As a student, it was an exciting opportunity for me to start learning a lot of the more technical and analytical sides of fishery science, and to gain new quantitative skills."

RESEARCH AT SEBS HAS THE OPPORTUNITY TO EFFECT REAL CHANGE. HERE ARE JUST TWO OF THOSE PROJECTS, WITH INPUT FROM THE FACULTY AND STUDENTS INVOLVED.



Cara Cuite and Gina Pope McKeon lead the team for Breakfast After the Bell. Pictured from left to right: Matt Civile, Gina Pope McKeon, Genesis Artera, and Cara Cuite.

CARA CUITE

Department of Human Ecology

It's a common belief that breakfast is the most important meal of the day—especially for kids, since an empty belly can set the tone for a distracted day at school. But what if every student was offered free breakfast? Would their attendance, tardiness, and disciplinary numbers improve? That's what Cara Cuite is trying to find out.

Cuite's project evaluates Breakfast After the Bell, a program implemented in 2014 by New Brunswick Public Schools that offers free breakfast to all K–8 students, regardless of their ability to pay. Cuite and her team interviewed school staff. They conducted a teacher and parent survey. And they organized student focus groups. Then, they compared this feedback with data on student tardiness, attendance, and disciplinary action.

"What we found was that there is a huge spike in the number of students eating breakfast when the project starts—that's what we expect and what we want to see," Cuite says. "But then, in New Brunswick, we were seeing a decrease in those numbers. And we wanted to find out why."

First, students were getting tired of the food being served, since there wasn't much diversity in the options. Plus, while teachers and parents overwhelmingly support the program itself, they expressed concerns about the quality and healthfulness of the menu. "We shared our findings with the school administration and they used our data to make the decision to take on a new food service provider," Cuite says. "We've already had an impact."

PHOTOGRAPHY BY ROY GROETHING.

GINA POPE MCKEON

Doctoral Student in Applied and Community Nutrition

To say that community health is important to Gina Pope McKeon is an understatement. She holds undergraduate and master's degrees in nutrition—both from SEBS—and is working towards a doctoral degree in applied and community nutrition. So when the opportunity arose to work with Cuite on her New Brunswick Breakfast After the Bell research project, Pope McKeon jumped at it. "I wanted to be involved in research that meant something," she says. "It's really important that these students are eating breakfast, and I'm interested to see if it can help them in school. Especially living so close to New Brunswick and having lived in the city as a student, I felt I should have an idea of what's happening in our community."

Pope McKeon has been involved in many aspects of the project, from developing parent and teacher surveys to organizing student focus groups to analyzing the data. She also got the chance to assist with presentations to the New Brunswick superintendent and administrators, which is an invaluable experience for her. "I've learned how to navigate relationships with other institutions outside of Rutgers," she says. "As academics, we can sometimes get stuck in the academic world. But, especially in nutrition, the community aspect is so important. Being able to learn how to bring our findings to the community so they can use them is an experience I know will help me going forward."

CONGRAT
Class of



ULATIONS of 2018!



Understanding the POLLINATOR Population

As land conversion, climate change, and increased pesticide use threaten ecosystems the world over, one animal in particular has been on farmers' and the public's radar in recent years: the bee. The Natural Resources Defense Council estimates that pollinators such as bees are responsible for maintaining at least 30 percent of the world's crops and 90 percent of its wild plants. Bee declines, then, threaten not just the beautiful ecosystems that support wildlife worldwide, but also the food supply at home. In response, a flurry of research from government agencies and academia alike has focused on bee populations, as researchers seek to understand the problem and propose sustainable solutions.

One such study, published earlier this year in *Science* and led by Rachael Winfree of the Department of Ecology, Evolution, and Natural Resources, found that the larger an area, the more species of wild bees are necessary to pollinate crops. While experiments have shown a correlation between more species and increased pollination, this study is one of the first to confirm that increase in nature.

Winfree and members of her research team observed, collected, and identified more than 100 species of wild bees pollinating crop flowers on 48 farms in New Jersey and Pennsylvania over the course of several years. What they found was that more than half of these species were needed for pollination at one or more farms in one or more years.

"Different bee species are needed to pollinate blueberry, cranberry, and watermelon crops, and also different farms, even of the same crop, need different species," Winfree says. "This is what ecologists would expect, but it had not yet been shown in the real world."

In her earlier work, Winfree outlined suggestions for farmers and landowners who wanted to encourage populations of wild pollinators. First, farmers can plant flowering plants along road edges or fallow fields, aiming for plants with different flowering periods, to support pollinators throughout the growing season. Plus, she says, reducing pesticide use and avoiding spraying during crop bloom when more bees are in the field can further support the health of these important animals.



CORAL AND CLIMATE

Coral reefs make up less than one quarter of 1 percent of the marine environment, but their importance to the oceans cannot be overstated. Though they take up relatively little real estate, they're home to more than 25 percent of all known marine fish, says the World Wildlife Federation (WWF). And they're currently under multiple threats, the largest of which comes from climate change.

When the waters warm, corals undergo a process called bleaching. Essentially, the corals become too warm to support the algal populations that live on them, and they expel those algae. The coral then loses its vibrant color. While it's not dead at that time, bleaching turns the coral completely white and leaves it more vulnerable to additional stress and mortality. If bleaching happens long enough—or often enough—the coral can die. This is currently happening worldwide on a large scale.

WWF says that just three bleaching events were recorded between the years of 1876 and 1979. Sixty were on record between 1980 and 1993. However, in the year 2002 alone, more than 400 bleaching events were recorded. As a result, WWF estimates that 60 percent of the world's coral reefs could be destroyed within the next 30 years.

But there is hope. The research of Debashish Bhattacharya, Department of Biochemistry and Microbiology, is centered on how coral deals with environmental stress. The hope is that these findings can help inform protections for the population going forward. "We've done analysis of how

higher temperatures and low pH levels impact the growth and physiology of the coral," he says, "as well as how the entire coral animal itself deals with these conditions."

By working with collaborators from the University of Hawaii, Bhattacharya has been able to attain samples of both resistant and vulnerable populations of coral that endured a bleaching event. "If you want to understand how they withstand stress and how they can do so going forward, we must look at the genome of the animal, the algae on it, and the bacteria that makes up the microbiome," he explains. "We want to sequence the metagenomes of these samples and figure out which bacteria were present and which have confirmed resistance to stress. We also want to know how that microbiome changes during the stress period."

Bhattacharya is also a member of a special committee formed by the National Academy of Sciences, tasked with the challenging job of determining what can be done to save the corals in U.S. territories and states amidst warming waters. From transplanting the coral to new places and figuring out how they deal with stress, to identifying the most resistant corals that can be used as source populations, no solution is off the table. Bhattacharya, as a genomics specialist, will work to provide a review of the current research in these areas, to see if there is a way forward in using genomic resources and knowledge to address the issue of coral resilience amidst climate change.

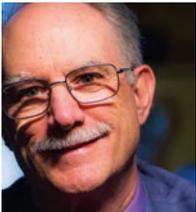
Office of Academic Programs



After 10 years, Rick Ludescher is leaving his post as dean of academic programs. He will return to SEBS in 2019, to resume his role as an educator and scientist, “doing the things that attracted me to being a college professor in the beginning,” he says.

IN THEIR OWN WORDS

Laura Lawson joined the Department of Landscape Architecture in 2010 as professor and chair. She is currently the dean of agricultural and urban programs. And, soon, she’ll step into the role of dean of academic programs.



**RICK
LUDESCHER**



**LAURA
LAWSON**

WHAT HAS BEEN THE MOST FULFILLING PART OF YOUR ROLE AS DEAN?

Making the structure of Academic Programs work for students. It’s the reason I took the job. It’s very different from the role you have as a professor, because that’s very one-on-one or one-on-a-few. The structural effect you can have as a dean is wider, and it’s amazing to see those changes work for individuals.

DO YOU HAVE A FAVORITE MEMORY?

Certainly one of the most rewarding times of the year is graduation. It’s why we’re here. It’s always bittersweet, because a group of students—some of whom I’ve known for their whole four years—is now leaving. But, of course, that’s why they came. Commencement is one of the most exciting and joyous events that I participate in.

WHAT INITIATIVE ARE YOU MOST PROUD OF, LOOKING BACK?

In terms of having a large effect, we have switched to a completely new structure for general education. Once the School of Arts and Sciences changed their method, we recognized the importance of melding with that structure to ensure that any student who came to our school could easily transfer to another if their goals changed, and vice versa. It’s purely structural, but fully integrates SEBS into the university in a really important way.

HOW ARE YOU HOPING TO LEVERAGE YOUR SEBS EXPERIENCE IN YOUR NEW ROLE?

As dean of agricultural and urban programs, I’ve been the bridge between the interests of the community, students, and agricultural experiment station. It’s been easy because everyone is motivated. Take putting the student farm together—everyone pulled behind it and now we have a farm at Rutgers Gardens. It was an idea that everyone was invested in.

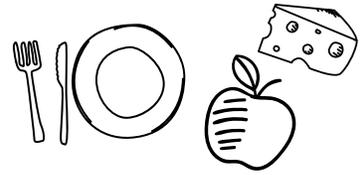
I’m looking forward to initiatives that will get students and faculty out in the community making good change, working with organizations and being interdisciplinary, and breaking down obstacles for interdisciplinary research.

WHAT ARE YOU MOST EXCITED ABOUT?

I’m excited about advancing the living laboratory concept and using our campus as a site for research and teaching. Here at SEBS, we can address issues of sustainability like no one else and we can do that through interdisciplinary efforts.

WHAT IS YOUR VISION FOR YOUR ROLE?

One of the things I love about New Jersey is its diversity. But inclusion is different. It’s about making sure everyone’s voice is heard, and being open to different experiences and expectations. Creating an inclusive community is very important to me. Our goal is to be open and accessible.



MEET THE ACADEMIC DEANS

The academic deans pictured here help students navigate SEBS every step of the way, from choosing a major and minor to exploring research, internship, study abroad, and other academic experiences. With all the help they provide, we asked them:

What aspect of your job do you think makes the most impact on students?



Joe Ventola

“With advising and student scholarship administration, I provide a supportive and trusting place where students can successfully work through their academic and transitional university challenges.”

Sharice Richardson

“I was a first-generation college student at Rutgers University. I have dedicated my career to advising students and helping them take advantage of the opportunities Rutgers offers. Ensuring that Rutgers provides equal access to opportunity for every student regardless of their racial, economic, or family educational background is a central part of our land-grant mission.”

Liaan Pechera

“I try to empower students by encouraging them to take responsibility for their academic plans. We discuss their growth, and I help them visualize how to accomplish their goals. I inspire my students to be proactive about learning, not just in the classroom. By imparting information about the community and their own capabilities, students are able to find and earn their success.”



PLAN
strategy



ECOLOGY



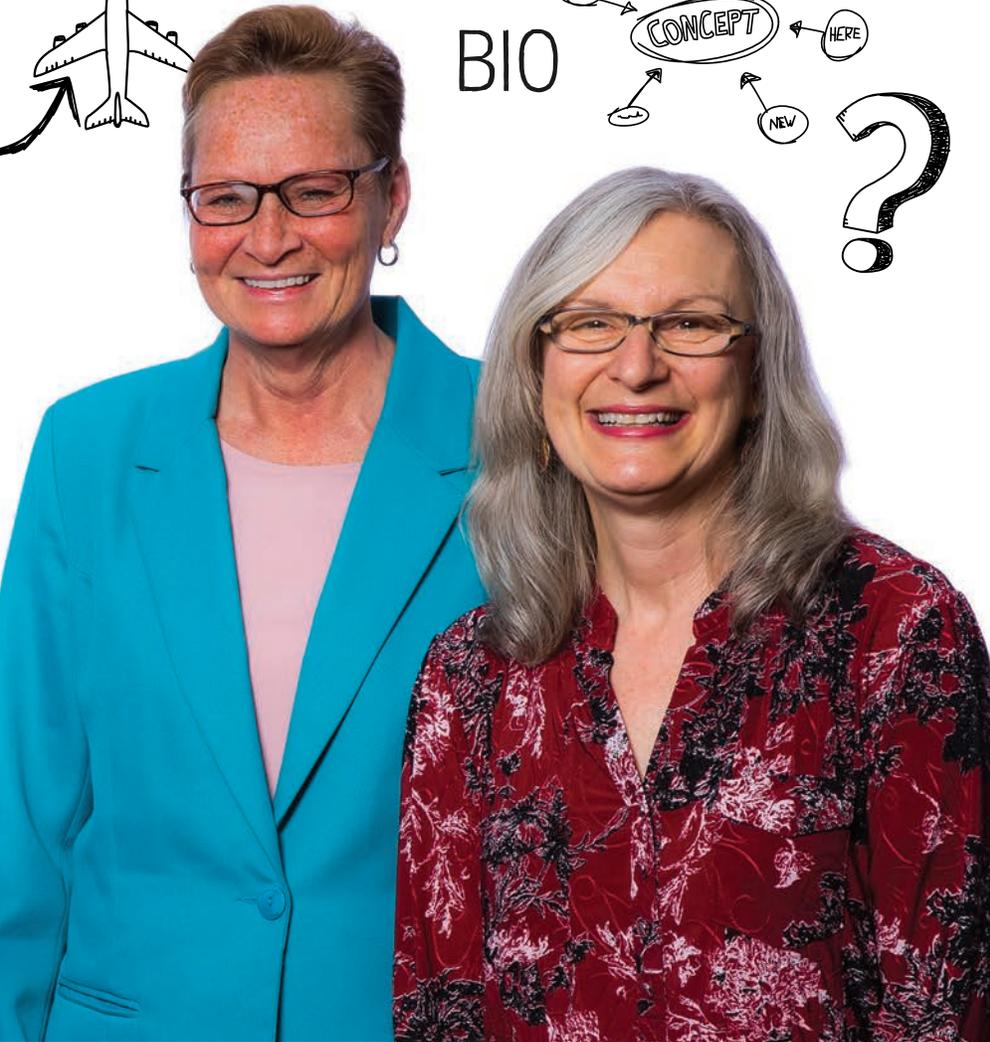
STEPS



ENVIRONMENT



BIO



Penny Carlson

“When at-risk students walk into my office, many are overwhelmed and having a difficult time. We talk about career goals and possible paths to those goals, and I help put them in touch with university resources. It’s great when students thank me for making a very stressful time just a little less stressful.”

Carol Andrew

“I believe my biggest impact is made with prospective students, who ultimately apply and enroll. Building bridges by sharing information and hosting informative, welcoming events assists with a smooth transition to SEBS and relieves student stress in the process of the transfer. This results in a productive and positive student experience.”



Bon Voyage

LEE SCHNEIDER

With a 48-year-long Rutgers career, Lee Schneider has held positions in coaching, instructing, student life, and academic affairs, and has been dean of students, executive director of the Rutgers Parents Association, and most recently assistant dean in Academic Programs—all, mostly, on the George H. Cook Campus.

He’s seen it transform from when he was a student at the College of Agriculture and Environmental Science, through the establishment of Cook College and, later, SEBS. Amidst all this change, one thing has stayed the same, he says: the people. “Those who really enjoy being here, and who stay and involve themselves in the campus community, really come out with something incredible,” he says.

As for his retirement, Schneider plans to travel, golf, spend time with his grandchildren, and get back to his farming roots with a little gardening. But he plans to stay close to campus. “I haven’t missed an Ag Field Day since 1965,” he says. “I don’t plan on starting now.”

Fast Track

Young Alumni on the Move!



Aubrey Weibel
SEBS'12, Animal Science,
Pre-veterinary Research Track

Aubrey Weibel is a STEM educator at the Liberty Science Center, which takes her all over New Jersey and New York hosting classroom workshops and assemblies for K-12 students. Topics range from animal adaptations to the chemistry of the stars to the physics of sports.

On Rutgers' impact:

Because of my contacts through the alumni association, I was able to shadow a few different people to see if their career paths were something I would like to pursue. Also, having animal handling experience definitely set me apart from many other applicants while looking for a job. I remember during an interview I was asked my favorite animal—I said goats—and I guess to prove I wasn't lying, they asked me to tell them a few facts about goats. Seven minutes later, I was still talking and I think they got the idea that I wasn't kidding around.

On her ah-ha moment:

Taking Dr. Sharma's Careers in Animal Science class was really helpful for me. I knew I was graduating pre-vet, but that's not the direction I wanted to go in. Every week, Dr. Sharma would bring in a different professional using their degree for amazing jobs and opportunities that had nothing to do with veterinary school. It really gave me hope that I could find something perfect for me—and I have!

On her Rutgers mentor:

Dr. Tim Casey was vital to me as an undergrad-

uate student. Even when things weren't going my way, he made sure I never gave up and found new ways to do everything I needed to. I would have been lost without him, and I always think about what he taught me when I have to find a workaround in any situation.

On her favorite SEBS memories:

Of course it's Ag Field Day. I still go and I'm looking forward to going again this year. Friends I met in clubs on the George H. Cook Campus are still some of my closest and we meet up every month. And, as strange as it sounds, one of my other favorite memories is the smell of the Cook Farm. Whenever I smelled the horses or cows I knew I was home.

The quote that motivates her:

"In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught." - Baba Dioum, 1968.

On Rutgers pride:

It makes me proud to know that I am in a community that supports each other, that we have a culture, and that I am always welcomed back as an alumna. Especially all of the strong women I met through Rutgers and Douglass—they always support each other and we push each other to be our best.



Chad Weibel
SEBS'12, Astrophysics,
Mathematics, and Meteorology

After receiving his bachelor's degree, Chad Weibel earned a master's degree in atmospheric

science from the University of Wisconsin in 2014. Currently, he's working on another master's degree—this time in physical science education at Rutgers—supplementing his time with teaching and tutoring.

On Rutgers' impact:

One of the biggest things I got from going to college at Rutgers was growing as a person and becoming more confident in who I am. In high school I was a rather reserved person and it took some doing to get me out of my shell, but over my time at Rutgers I was able to start reaching out to other people and making friends.

On his ah-ha moment:

I had two. One was three semesters into my master's in atmospheric science, when I looked around at the other graduate students and realized that they were all way more passionate about the subject than I was. I loved the math and the physics, but I was missing the intuition that they all seemed to have, which is born of constant research on weather phenomenon. I talked to my adviser and overhauled the end of my time there in order to take a bunch of graduate-level math courses to be qualified to teach college level courses at Rutgers. It was a year after that when I found the physical sciences education program, which set me on the path that I'm on today.

On his favorite SEBS memories:

There's a number of places on campus that I love—Passion Puddle, Voorhees Mall, and the Kissing Bridge to name a few. But Ag Field Day is probably my favorite thing about campus overall.

On next steps:

Starting this fall I hope to be teaching physics at a nearby high school. Beyond that...who knows? I might finally get a doctorate in physics once I get a few years of being a great teacher under my belt!

On Rutgers pride:

Rutgers is a great school. A lot of people overlook that because it's a public school, but Rutgers has a wonderful campus with wonderful people and I'm proud to be one of them.

In this continuing series, *Explorations* profiles recent graduates who have launched successful careers and are making an impact on society. This installment features a dynamic brother-and-sister duo who got their start at SEBS, and current graduate students who are making an impact in higher education.



Henry D. Bignell
GSNB'14, Endocrinology and Animal Biosciences

Hank Bignell is a senior livestock resource educator for Cornell Cooperative Extension, a position he's held for two years. His goal? To help more livestock producers enhance their businesses by providing best management practices, valuable educational materials, and personal support.

On Rutgers' impact:

I wholeheartedly believe that I would not be where I am today without the endocrinology and animal biosciences program. From hands-on experience working at the Rutgers Farm to establishing a research project, teaching an animal nutrition laboratory, and the countless other skills I obtained while in the master's program, I was ready to tackle any obstacles thrown at me in the cooperative extension field. The faculty of the animal sciences department along with the extension specialists continue to give advice and support to help me grow in this field.

On his Rutgers mentor:

I was fortunate to have two mentors, Dr. Carol Bagnell and Dr. Larry Katz. Dr. Bagnell was my adviser, and the training and guidance she provided has been invaluable. Without her leadership and guidance, I strongly believe I would not be where I am today. She has taught me so many technical and life skills that I utilize in my current profession and in my personal life. Dr. Katz introduced me to the cooperative

extension field when I first started my master's degree. He has been actively supporting me throughout my extension career. His guidance and friendship has been priceless.

On Rutgers pride:

My time at Rutgers has been invaluable. There are so many things that make me proud to be a Scarlet Knight. Knowing that the animal sciences department is full of amazing professors that provide an invaluable education to all of their students makes me the most proud of being a Rutgers graduate.



Tracy Wiegner
GSNB'02, Oceanography

After earning her doctorate in oceanography, Tracy Wiegner landed a position as professor of marine science at the University of Hawaii at Hilo (UH Hilo). She's been there for 14 years as a teacher, mentor, researcher, and community advocate.

On her Rutgers mentor:

My doctorate adviser, Dr. Sybil Seitzinger, has been a long-term sounding board for me. She taught me how to think critically, to examine a subject from every angle, unearth the unknowns, anticipate criticism, and address it before it is raised. She expected me to be the best scientist that I could be, even if I did not quite know what that entailed at that time. She encouraged me to write grants as a graduate student. And to this day, I'm glad that she did because I have been able to successfully obtain funding to support research projects and students from early on in

my career.

I've also continued her tradition of mentoring women in science. I strive to encourage as many female undergraduate and graduate students to pursue careers in science and to become mentors themselves.

On her favorite SEBS spots:

My two favorite places to visit and enjoy the outdoors at Rutgers were Passion Puddle and Rutgers Gardens. These were great places to get a breath of fresh air, stretch my legs, and unwind.

On her next steps:

I plan to use results from my research team's sewage pollution studies to assist Hawaii County and State in reducing the number of cesspools statewide. My hope is that this effort will improve coastal water quality with regards to human and ecosystem health. Additionally, I want to share our expertise with affiliated Pacific Island nations that are struggling with similar water quality issues as Hawaii, and assist them in improving their coastal water conditions. This summer, several faculty members and students from UH Hilo, including myself, will be traveling to the Marshall Islands to initiate this effort.

On Rutgers pride:

Having been part of the first cohort of graduate students from the Institute of Marine and Coastal Sciences, I am proud of how successful this institute has become. It is now a world leader in the field of oceanography. I also enjoy having graduated from one of the oldest institutions of higher education in the United States. I feel it is important to recognize all those that have come before me and those that have trained me, making my journey and successes possible.

If you are—or know of anyone—on the fast track, please email discovery@sebs.rutgers.edu and share the story.

Michael
Graziano
CC'79



Photography by Roy Groething

Pride and Support

Michael Graziano had his heart set on becoming a veterinarian when he stepped foot on the George H. Cook Campus as an animal science major. His time on campus, however, introduced him to a research-intensive trajectory that eventually earned him a Ph.D. from the University of Kentucky. Today, he is the vice president of drug safety evaluation at the Bristol-Myers Squibb Company, and gives back to his alma mater by supporting the Animal Science Graduate Student Scholarship.

**To make a gift, visit:
makeagift.rutgers.edu**

Q: *How did your experience on the G.H. Cook Campus influence your career?*

A: Cook College, as it was named when I attended, really set the framework and foundation for my career. The program in animal science had a lab-based option, which provided fantastic undergraduate training and education for those who were not interested in working with farm animals. I distinctly remember one of the lab courses taught by the late Dr. Enrique Santamarina, who was also my adviser. He was a wonderful and patient man who helped me and encouraged me to pursue further studies in graduate school. I also had the opportunity to take an introduction to toxicology course during my senior year, which was taught by Dr. Anthony Verlangieri. I was fascinated by the subject of toxicology. Together, these professors and the basic science foundation I received at SEBS really helped steer me in a certain direction for graduate school and beyond. I am really indebted to Rutgers and the animal science program for giving me an outstanding undergraduate experience.

Q: *There must be a number of causes you could support. Why SEBS?*

A: It is very important for me to give back to Rutgers since my experiences at Cook College both academically and socially were priceless. Rutgers really helped me grow as a person and exposed me to new and exciting career options. The coursework was extremely challenging as compared to my high school experience, and I had to learn how to study and really understand the subject matter. I have had a very successful and rewarding career, and I truly believe this wouldn't have happened without Rutgers. For that I am truly grateful, and I feel a strong sense of duty and obligation to give back to the school where it all started. I support a lot of charities, but Rutgers is at the top of my list.

Q: *Do you have a message for your fellow alumni?*

A: I would remind them to never forget where it all started. Rutgers gave you a great experience and I would encourage everyone to take pride in Rutgers and support your school. With the high cost of education and the competitiveness of research funding, I really believe we all have an obligation to give back. The future success of Rutgers' students and academic programs are counting on us. Upstream red team!

The Rutgers University Alumni Association welcomes news about your professional accomplishments and personal milestones. Submit your information at ralumni.com/mynews on the web, send it to your class correspondent listed in the Class Notes section of Rutgers Magazine, or drop a note via postal mail (Rutgers Alumni Communications, Rutgers, The State University of New Jersey, 7 College Avenue, New Brunswick, NJ 08901-1280). Ag, CAES, Cook, and SEBS news will be posted and indexed at discovery.rutgers.edu.

Our school's Class of 1943 made a showing at the Rutgers 250th anniversary reunion weekend. **Francis Mansue AG'43** attended with his daughter-in-law Karen, and **Richard Snethen AG'32** was accompanied by his daughter Mary. The program included marching in the parade, lunch at The Rutgers Club, and a tribute to fallen classmates at the Grove of Remembrance. **Frank Wong CC'83, SPAA'07**, assistant vice president for facilities planning and development at Rutgers, announced that the Grove would have to be relocated to permit expansion of the nearby athletic center and he showed areas for its relocation.

Snethen attended the reunion the following year as well, this time with his daughter Letty with the usual routine: parade, lunch at The Rutgers Club, and a tribute at the Grove with Snethen officiating. **Brian Clemson CC'87**, a Rutgers landscape architect, presented the new Grove site (the previously agreed site was not viable, as roots of cherry trees would jeopardize underground thermal heating and cooling systems) and promised the move will be accomplished for the 75th reunion.

After reading the January issue of *Rutgers Magazine*, **John Pino AG'44, GSNB'51** wrote to note that "our class seems to be getting closer and closer to the beginning of 'Class Notes.' Not much we can do about that, but let's try—stay healthy!" This report was shared by **Doug McCabe RC'44**, class correspondent.

Peter Martens, Jr. AG'48 sends his kudos for the fall issue of *Explorations* magazine. He looks back at his time as a student with fond memories. And as a 1978 faculty retiree of Cooperative Extension Service, he reflects on the changes since those "ancient" times. He shares the following: "Although its *nom de plume* may have changed over the years, its purpose has remained constant: educate, inculcate, conduct research, and disseminate."

John Brockett AG'52, GSNB'54 says he and his family "lucked into" their beautiful farm on a hill in Lewistown, PA. "Each of our eight children learned how to grow crops and raise various animals," reports the retired county agent. "They all had 4-H projects. Their fruits and vegetables were sold at our farm market and helped

them pay their college costs." Seven of his children are college graduates, five from Penn State. John's wife passed away a couple of years ago, but he has "17 grandchildren and six great-grands so far. I say so far because one of my granddaughters got married last summer and one grandson just got married this year." The report was provided by class correspondent **Bob Comstock RC'52** (robcomstock@yahoo.com).

Prompted by the mention of the **Chuck Logg AG'53/Tom Price AG'61** Olympic gold medal in a previous column, Chuck called to share that he had suffered a recent fall, and was now back in Homestead, FL, recuperating. Two upcoming events are on his calendar: one granddaughter receiving her Ph.D. from Cal-Berkeley and another getting married in Italy. This report came from class correspondent **Jim Van Vliet ENG'53** (jcvsquare@verizon.net).

Class correspondent **Robert McBride RC'55**, (mojomom@surewest.net) shared the following in his class column: "Another reminder from our class leadership, **Jack Witemeyer AG'55, Gordon Macdonald AG'55, GSNB'58'61, and Ernie Barrett ENG'55** that we all have succeeded in many ways as a result of our education, and we can repay those who got us here by continuing to support academic life at Rutgers. A gift of \$100 each year to our Class Scholarship Fund will go a long way to show new students that we care for them, too, just as we were cared for more than 60 years ago. Thanks for your consideration."

William Whyte AG'57 attended his 60th reunion, a weekend jam-packed

WE WANT TO HEAR FROM YOU.
Send us your story!

School of Environmental and
Biological Sciences
Alumni News

Rutgers, The State University of NJ
57 US Highway 1, Room 169
New Brunswick, NJ 08901-8554
or email alumni@sebs.rutgers.edu

with activities including the traditional Old Guard dinner, according to class correspondent **Harold Kaplan RC'57** (hjk@ufg-lease.com).

David Blanch AG'59 attended the Alumni Weekend on the Banks as reported by **Alan Schreihofner RC'59**, class correspondent (aschreihofner@bellsouth.net).

Mike Moran RC'67, class correspondent (revmoran@prodigy.net), shares the following report: "It was great to see so many members of the Class of 1967 at our 50th reunion April 28-29. We owe a debt of gratitude to our class officers, especially **Robert Gravani AG'67**, class president, and **Ronald Garutti RC'67**, chair of the 50th Milestone Campaign Committee." Mike reports that **Doug Martin AG'67**, **Chris Probasco AG'67**, and **Pete Tallman AG'67** were among the attendees.

Class correspondent **Rick Stier AG'74** (rickstier4@aol.com) shares that he was in New Jersey the weekend of May 13-14 to see his sister's (**Betsy Whitehead CC'80**) youngest, **Charlotte SAS'17**, graduate.

Donald Heilman CC'76, GSE'07,'12 is a member of the Appalachian Mountain Club's White Mountain 4,000-Footer Club by climbing all 48 of the 4,000-foot summits in New Hampshire. He is the director of the Office of Student Legal Services at Rutgers.

Kate Sweeney CC'79 was recognized by Morgan Stanley Wealth Management as one of 17 outstanding women professionals at the firm as part of its partnership with MAKERS, a project dedicated to identifying and celebrating women of accomplishment across multiple fields.

McDonald Homer CC'82 is an official with the U.S. Agency for International Development. During a 2014-16 tour in Afghanistan, Homer helped the founder of the Afghanistan Astronomy Association apply for a \$75,000

grant from the U.S. Embassy to fund astronomy teaching tools, including a portable planetarium that inflates like a bounce house. At Homer's suggestion, the planetarium was named after his long-ago mentor and former Newark Museum Planetarium director, **Gary Swangin NCAS'67**. Since its creation, the Gary Swangin Planetarium has served 5,000 Afghan children.

Faculty retiree **Joseph J. Soporowski RC'51, RBSG'56, GSED'78** sent a note to inform us that his son, **Joseph J. Soporowski CC'87, GSNB'89,'91** is the director of academic and environmental programs with Sustainable Education Associates, LLC, a New Jersey- and Florida-based environmental and educational consulting firm. In his role, he advocates for the inclusion of sustainability education as part of the American school system curriculum, and is the author of *Sustainable Education: A Simplistic Strategy for Infusing Environmental Education into America's Schools* available on Amazon.

Class correspondent **Valerie (Record) Delaney RC'88** (vdelaney@optonline.net) shares that **Joan Barry McCormick CC'88** is the vice president for institutional advancement at Pratt Institute in Brooklyn, NY.

Class correspondent **Ronald Gellert RC'93, CLAW'97** (rgellert@gsbblaw.com) shares the following report: "After graduating from Cook College, **Glenn Gabisan CC'93, NJMS'97** went on to UMDNJ—New Jersey Medical School (with three other Cook classmates) and graduated in 1997. Since his residency, Glenn has been in practice for the past 12 years at Professional Orthopaedic Associates. Glenn is married to Leizle Talangbayan Gabisan, who is a radiologist at Monmouth Medical Center, and they have an 18-month-old son, Grant."

Paul Orbe CC'94 teaches chemistry at the Academy of Enrichment and Advancement in Union City, NJ and received a Maitland P. Simmons Memorial Award for New Teachers

from the National Science Teachers Association.

Veronica Olazabal CC'96, SCILS'96, EJBG'06 shares the following with us: "I am a graduate of 1996 and director of measurement, evaluation and organizational performance at The Rockefeller Foundation. Working internationally on measuring and assessing the impacts of our global agriculture, health, energy, employment, and urban portfolios I have so much to be thankful for. At Cook College, I dabbled in all things international from tropical agriculture which took me to Puerto Rico to a program in Costa Rica to graduate studies in agriculture economics where I learned about the Green Revolution. And here I am, doing exactly what I trained then to do and based out of the institution which drove Norman Borlaug's very vision. Appreciate all the effort from the faculty!"

Derek J. Lovitch CC'99 has a second book, *Birdwatching in Maine: A Site Guide* (University Press of New England, April 2017). For more information, please visit the publisher's website at upne.com/1611687224.html.

Dylan M. Dreyer CC'03 has been recognized by Crain's as one of the *12 to Watch in TV News* for 2018. Dylan is the weather anchor for NBC News' *Weekend TODAY*, and a meteorologist for *Sunday TODAY with Willie Geist*, along with serving as a weekday weather correspondent and regular co-host for *TODAY* and *NBC Nightly News with Lester Holt*. Dylan also hosts the NBC Saturday morning program, *Journey with Dylan Dreyer*.

Bryant Jefopoulos CC'08 is a mathematics instructor at Somerset County Vocational and Technical High School.

David Pirovich SEBS'14 has been accepted into the Molecular Helminthology Lab at Tufts' Cummins School of Veterinary Medicine as a doctoral student.



RUTGERS

School of Environmental
and Biological Sciences

Office of Alumni and Community Engagement
Rutgers, The State University of New Jersey
57 US Highway 1
New Brunswick, NJ 08901-8554

ADDRESS SERVICE REQUESTED²

NON PROFIT ORG
US POSTAGE

PAID

NEW BRUNSWICK, NJ
08901
PERMIT # 157

