DEAN’S MESSAGE

This special issue of Bren News reflects a core theme at the Bren School: partnership and collaboration. One founding principle behind the school’s mission of driving lasting environmental solutions and training the problem-solvers of the future is that the best insights and innovations come from putting together the right team. That philosophy obviously informs the team thesis model for the master’s program, but it also shapes nearly every aspect of our approach — the faculty we hire, the initiatives we seed, and the partnerships we build locally and around the world.

In this issue, we look beyond Bren Hall to highlight our diverse partners near and far. They include corporations, NGOs, governments and government agencies, centers of education and research, our affiliate groups, and our own alumni. We focus on their stories as leaders in environmental problem-solving and how their collaborations with Bren students and faculty are having impacts on many fronts.

Every one of these collaborations began with an idea and a conversation, often between just two people. Many have grown into a vast lattice of connections. Faculty research partnerships spawn collaborations years after the initial project has been completed. Bren students who work closely with a partner to solve an important problem build professional linkages that they leverage to support innovative problem-solving throughout their careers.

Here, we highlight some of those collaborative communities, including how they have evolved, what has been accomplished through their partnership with the Bren School, and where they are going. I hope you enjoy exploring this broad array of people and organizations that we join as partners and proudly view as essential members of our community.

Note: We have put a great deal of information into this issue, more than will actually fit into the print edition. To see the complete version of every article in the issue, use the QR code on the left, or go to http://bit.ly/1RoQQHR.

STUDENTS PARTNER FOR CARBON-FREE GIFT

Cycling is an important part of the Bren School culture, and UCSB has been ranked among the top bicycle-friendly universities in the nation. Thanks to a gift from the MESM Class of 2015, Bren students will soon have free access to a fleet of bikes for rapid transit around the UCSB campus.

With 100-percent participation from its seventy students, the Class of 2015 raised more than $1,300 to initiate the shared-bike program. Bikes in the fleet came from UCSB’s Community Service Organization bike auction, Craigslist, and donations from students, faculty, and staff. Students on the Bren School Sustainability Committee (BSSC) will take responsibility for maintaining the bikes and managing the program, which will start in Spring Quarter 2016.

The bike program reduces students’ dependency on cars, keeps old bikes out of landfills, and gives those who have a short break in their schedule a chance to get outside and exercise or ride across campus for a quick errand in Isla Vista.
AWARDS FOR BREN FACULTY

This past January, Bren School professor Christopher Costello became one of eight people worldwide to receive a 2016 Peter Benchley Ocean Award. Acknowledging outstanding achievement in protecting the world’s oceans and coasts and the communities that depend on them, this is among the most prestigious of ocean awards. Past recipients have included heads of state, journalists, explorers, citizen activists, and leading marine scientists such as Bren School dean, Steve Gaines, who received a Benchley award in 2014. Costello, a resource economist, was honored in the “Excellence in Solutions” category for his contributions to developing interdisciplinary strategies for restoring the world’s depleted fisheries.

In June 2015, Bren School professor Arturo Keller received a Thought Leader Award from Agilent Technologies, Inc., a major developer and manufacturer of scientific instruments. The award recognized Keller for his significant scientific contributions related to engineered nanoparticles (ENPs) in agriculture, and provided him with two pieces of cutting-edge equipment and staff support worth nearly $1 million to advance his research. Keller and his lab team study the fate and transport of ENPs that enter freshwater and saltwater systems from agricultural runoff, seeking to understand the particles’ potential impacts on human and environmental health. The donation of the instruments allows Keller’s lab to perform better, more sophisticated, and more precise science. On the other side of the partnership, Agilent will receive real-world feedback on the instruments, enabling it to identify how best to evolve that technologies.

NEW FACULTY AND STAFF

JIM SALZMAN

After some 15 years as a Bren School visiting professor and the guiding force of the school’s environmental-law curriculum, Jim Salzman has joined the school as a full professor. In his wide-ranging scholarship, Salzman has addressed drinking water, trade and environment conflicts, policy-instrument design, and the legal and institutional issues in creating markets for ecosystem services. He has lectured around the world and is a dedicated teacher known at Bren for surfing with his students after the final day of his rigorous Environmental Law course. The most recent of his eight books, Drinking Water: A History, is in its third printing, and his co-authored casebook, International Environmental Law and Policy, is used more than two hundred schools around the world.

KRISTI BIRNEY

Kristi Birney (MESM 2006), the new Associate Director of Career Development and Alumni Relations, has remained closely involved with the Bren School since earning her Bren degree. She has spoken on career panels, advised Master’s Group Projects, guest-lectured in Bren courses, and hired numerous Bren students for internships. Birney’s professional experience in the nonprofit, consulting, and government sectors enables her to adeptly advise Bren students, who often pursue careers in those areas. “I’m thrilled to be back at Bren, putting my nine years of environmental career experience to work for students and alumni,” she says. When not focusing on students’ professional development or employer and alumni relations, Birney might be found surfing or stand-up paddling.

KRISTINE FALOON

Bren alumna Kristine Faloon (MESM 2009) has returned to the Bren School as the new Student Affairs Coordinator. Previously she worked as a student mentor at Boston University, and then as a student-affairs officer at the UCSB College of Creative Studies. She also spent a year at sea teaching marine science and SCUBA as part of a shipboard college program. She says she’s excited about her new job, which allows her to “support students in their endeavors, guide them through the hiccups along the way, and be a part of all that positive energy!”
The Bren School has hired a long-time Gaucho, Steve Miley, as its new IT director. Miley received his BS in computer science from UCSB and most recently built and managed the university’s course-management system, GauchoSpace, as the director of IT services for the UCSB College of Letters & Science. In his new position, Miley oversees all aspects of computing services. The Bren School’s environmental focus strikes a chord with Miley, an outdoors enthusiast who enjoys backpacking, kayaking, and cycling in his free time. “It’s exciting to be part of a community that is passionate about making our world a better place,” he says.

LILI PRAHL
Lili Prahl (MESM 2013) was hired in fall 2015 as the Program Manager for the Sustainable Water Markets (SWM) Fellowship Program. Previously, Prahl managed projects related to water quality, riparian restoration, and stream flow on private lands for the California Land Stewardship Institute in Napa. She says she is pleased to return to guide current students through the “awesome SWM curriculum.” Beyond Bren, Prahl likes to pursue adventures in classic Southwest destinations like Moab and Arches National Park, in Utah.

KIM RITCHEY
With her extensive resort background, Kim Ritchey brings a five-star approach to her position as the new Senior Events Manager at the Bren School. Ritchey has spent nearly a decade managing corporate and social events, most recently at the Ojai Valley Inn. “I enjoy working at Bren, mostly because of the amazing students and faculty, and the great sense of support and teamwork,” she says. Ritchey’s first events have reflected great style and taste, as well as the Bren School’s signature warmth, friendliness, and penchant for good food.

KRISTEN ROBINSON
Last May, Kristen Robinson became the Bren School’s first Director of Admissions and Outreach. Robinson brings to the new position the same skills, energy, enthusiasm, and innovation that earned her a UCSB Distinguished Service award in her former role as Associate Director of Career Development and Alumni Services. In her new job, Robinson is responsible for promoting the Bren School to diverse students around the world, guiding the admissions process, and recruiting top students to the Bren School.

ESSENTIAL VIDEO VIEWING
The Bren School has four new videos. See them on the Bren website or on the school’s YouTube page.

Master’s Group Projects: An insider’s look at a defining element of the Bren School, the year-long collaboration that serves as the capstone for the master’s degree. In the video, students, alumni, faculty, staff, and clients discuss the projects, in which students develop professional skills and tools while solving environmental problems for actual clients.

Bren Career Services: Get to know the stellar Bren School Career Development team. Widely appreciated by students and alumni for the outstanding support it provides at Bren and long after graduation, the team is often mentioned by students as an important reason for coming to Bren. This is a must-see for any prospective Bren student.

Faculty: Spend a few minutes with Bren School professors Hunter Lenihan, John Melack, Naomi Tague, and David Tilman. See how they perceive the Bren School, where both the curriculum and research are characterized by multidisciplinary, solutions-based approaches to environmental management, and learn a bit about their research.

Student Life: What’s it like to be a Bren student? In this video, two master’s students and one PhD student share their lives, from how they commute and where they study to campus employment, the tightly knit Bren community, and how they spend their leisure time. Don’t miss this if you are interested in attending the Bren School.
Bren Partnerships

Many Bren students and faculty can trace the beginnings of their environmental careers to early encounters with the kind of pristine nature depicted on this issue’s cover illustration (left). Produced by Bren alumna, lecturer, and fine-artist Allison Horst (PhD 2012), this unique take on the Bren logo captures beautiful plants and animals but also includes elements reflecting a human presence. It suggests our link to, and our partnership with, all other forms of life on Earth. Partnership is the building block of collaboration, which is essential to solving environmental problems. That’s why it became a foundational concept on which the Bren School was conceived and realized. Collaboration, in turn, leads to community, another important concept that plays out daily in the life of the school.

This issue of BrenNews is dedicated to the many partnerships linking the Bren School to collaborators in business, government, education and research, non-governmental organizations, and our own alumni community. Each is tremendously important because it connects us and allows us to more effectively pursue our shared mission of solving environmental problems.
In 2009, when the environmentally oriented outdoor apparel company Patagonia wanted to understand the water footprint of various garments it produces, it turned to the Bren School and became the client for a Master’s Group Project (GP). In 2013, when the company was looking to assess and, if possible, reduce the greenhouse-gas emissions from trucks carrying its products, it went again to the GP well. And in 2014, when Patagonia wanted to better understand the land-use and related biodiversity impacts of fabrics used in its garments, it commissioned another GP.

Most recently, in spring 2015, with accumulating plastic debris having been recognized as a serious threat to the health of oceans and marine organisms worldwide, Patagonia proposed a GP in which Bren School master’s students would help the company to understand whether and how its products might be contributing to the problem of marine plastic pollution and how to mitigate the impacts.

“Our partnership with the Bren School is extremely valuable,” says Jill Dumain, Patagonia’s Director of Environmental Strategy. “By having these talented students work on problems important to our ongoing sustainability efforts, we learn as a company, the students get professional experience in a dynamic corporate setting, and we get excellent employees when we have a full-time job to offer them.”

The latest project is referred to by the Bren team as “Pataplast.” In the proposal written by Dumain and Bren alumna Elissa Loughman (MESM 2005), the company’s Manager of Product Responsibility, students were asked to conduct a literature review of research on plastics and microplastics in the ocean; determine whether plastic microfibers are being shed when Patagonia garments are washed by consumers; understand the role of waste-water treatment plants in preventing textile microfibers from entering the marine environment; and recommend ways to minimize the impacts of microplastics across the life cycle of Patagonia products. The project was mentioned last year on the Fortune magazine website in an article about Patagonia CEO Rose Marcario’s leadership in the company’s sustainability efforts.

“The partnership with Bren allows us to have research done with more depth than we could do on our own in the same amount of time,” Loughman says.
Five Students, Two Major Medical Corporations

Assessing the water supply chain for synthetic insulin for clients Eli Lilly and Kaiser Permanente

A couple of hours prior to the official start of the 2015 Group Project Public Presentations, a group of eight executives from the healthcare provider Kaiser Permanente and pharmaceutical giant Eli Lilly, including its vice president for diabetes, convened in a conference room at the Fess Parker Doubletree hotel in Santa Barbara for a special presentation of a Bren School Master’s Group Project for which they were the clients.

During the next twenty minutes, the leaders of these two major corporations listened carefully as five second-year Bren master’s students explained their framework for assessing water risk throughout Eli Lilly’s global supply chain.

As of 2012, some 29 million Americans had been diagnosed with Type 1 diabetes. Those individuals rely on synthetic insulin to maintain their health, and much of it is produced and distributed by Eli Lilly. As a multinational corporation, Eli Lilly has a global supply chain to monitor and manage, and clean water is a critical component.

Kaiser Permanente purchases insulin from Eli Lilly and needs to ensure a steady supply of insulin for its patients. The Kaiser executives therefore want to know about any change related to Eli Lilly’s water supply that might affect the quality or quantity of water available at any point in the supply chain anywhere in the world.

While many multinational corporations are prepared to manage water-related risk they may face in their direct operations, few have tried to quantify the indirect exposure to water risk they face via their global supply chain. In 2014, Eli Lilly and Kaiser Permanente came to the Bren School wanting to do just that.

Over the course of nearly a year, the five students produced a “Water Risk Analysis Framework for Suppliers.” The software can be applied to Eli Lilly’s first-tier supply chain for manufacturing and packaging insulin for the U.S. market. The framework for analyzing water risk allows the company to assign a score to various types of vulnerabilities in its supply chain, alerting it to the possible need for an alternative plan to avoid any interruptions to its supply of clean water.

Green Vision

Dennis Allen brings forward thinking to Bren

A sustainability visionary for decades, Dennis Allen brings his vast experience in green construction to the Bren School Dean’s Council.

Dennis Allen’s partnership with the Bren School goes back to the early days. In 1998 he was running his green construction company, Allen Associates, and serving on the board of the Sustainability Project, a Santa Barbara–based nonprofit focused on the built environment. The plans for Bren Hall were 70-percent complete when founding Bren School dean, Jeff Dozier, and the school’s Advisory Board made it a priority to green the future home. The US Green Building Council had just introduced its Leadership in Energy and Environmental Design (LEED) certification program, and green buildings weren’t yet on most people’s radar.

When the Bren School contacted the Sustainability Project about greening Bren Hall, Allen was among those who came out to take a look. The result of that partnership — and others with material and equipment suppliers, utilities, and contractors — was Bren Hall, the first LEED Platinum laboratory building in the world.

Best Foot Forward

Deckers Brands is one of those companies that consistently shows up near the top on lists of best places to work. It also has a strong commitment to corporate responsibility, including environmental sustainability. It has partnered with the Bren School in several ways to further act on those corporate “instincts,” including as a client for Master’s Group Projects.

In 2007 Deckers provided a $1 million endowment to support students and academic programs. The Bren School recognized the gift by renaming the ocean-view terrace at Bren Hall the “Deckers Outdoor Corporation Terrace,” more commonly referred to as “Deckers Deck.”

A Many-Sided Partnership

Ryan McMullan (MESM 2005) has experienced the Bren School partnership with Toyota, where he is Manager of Sustainability, Environmental, and Safety, from every angle. He served an internship with the company in 2004 while he was a Bren student in the Corporate Environmental Management specialization, and began working full-time for Toyota in 2006, some months after graduating.

During his first four years with Toyota, McMullan focused on sustainability strategy, greenhouse gas reduction, and targets setting. Later, he took on additional roles in environmental and safety compliance. Having experience in all those areas led to his promotion to his current position. Along the way, he has continued to engage with the Bren School.

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GROUP PROJECTS: STUDENTS SOLVING PROBLEMS

“GPs,” as they are commonly referred to, allow students to hone their professional skills while providing solutions for real-world clients and building lifelong friendships.

Dean Steve Gaines has often referred to Master’s Group Projects (GPs) as the model for how the Bren School operates. It’s easy to see why. The projects, in which teams of three to five students collaborate with each other and their client over the course of a year, are aimed at solving specific environmental problems, which is the school’s mission. GPs reflect the fact that doing so requires groups of individuals having varied strengths and backgrounds. They also emphasize the need for effective communication among diverse partners, and the broad, multidisciplinary knowledge required to understand and solve a problem. GP members need to be flexible, creative, and patient to overcome challenges and redirect as needed. They also need to be quantitatively rigorous, basing their solutions on sound science.

“Collaboration is the way modern science is done,” says Bren professor Hunter Lenihan. A similar method of operating led the UCSB National Center for Ecological Analysis and Synthesis (NCEAS; see page 17) to set the standard for what has become known as “synthetic science.” Like NCEAS working groups, Bren School GPs often have an impact far beyond anyone’s initial expectations, stimulating thought and action well outside the scope of the original proposal. And as Bren professor John Melack says, “In some cases the students come up with solutions that not even big corporations have thought of themselves.”

A Group Project was a key element leading to the initial visit by Bren School students to China in 2010, where they interacted with faculty and students in the environmental school at Nanjing University. That was an early step in a deepening partnership focused on addressing climate change. (See page 15.)

This year’s Group Projects include one, called GEOMAR, in which five students are working with their client, National Geographic’s Pristine Seas program, to conduct a cost-benefit analysis related to the possible rezoning of the Galápagos Marine Reserve (GMR). The goal is to identify zoning options, including no-take zones, that expand the economic benefits of conservation. Closer to home, students are partnering with such diverse clients as the UCSB Chancellor’s Sustainability Committee, the U.S. Bureau of Ocean Energy Management, a private business called First Solar, Inc., the Santa Barbara City Fire department, and various NGOs to tackle a range of environmental challenges.

In some cases, several GPs have addressed a single subject in different years. One such project in 2010 dovetailed off previous work by a Bren student who, while working for the Channel Islands Marine Sanctuary (CINMS; see page 10) had written a report about container ships striking whales in the Santa Barbara Channel. Since then, two more GPs have partnered with NOAA, CINMS, the Ventura and Santa Barbara air-quality management districts, the shipping industry, and local stakeholder groups in seeking a solution to the problem.
Interdisciplinary collaborations related to water are common at the Bren School and may involve partnerships with other universities, water utilities, government agencies, private companies, or environmental consultants. Just since 2010, twenty-five Master’s Group Projects (GPs) have focused on freshwater issues, and another five have addressed challenges related to the energy-water nexus, which refers to the interrelated needs for water to generate electricity and for electricity to move and treat water.

The Bren School is also training water experts through the Sustainable Water Markets (SWM) Fellowship Program. The three-year-old program, with funding from the Walton Family Foundation, supports MESM and PhD students. Fellows study market mechanisms that can enhance the efficiency and effectiveness of water exchange and help keep water in rivers, as well as the science needed to inform the structure and operation of water markets. While two of the first three PhD SWM Fellows are still at Bren, all four of the first MESM Fellows to have graduated found jobs related to their interest in using market mechanisms to solve problems associated with water.

They and other Bren students in the Water Resources Management specialization are supported by Bren School faculty members who are widely recognized experts in water-related fields ranging from mountain snowpack and watershed hydrology to river sedimentation, riparian ecosystems and habitat, water markets, water pollution, microbiology and water, lake biochemistry, and water policy. They impart to students a deep understanding of the connections between the atmosphere, surface and ground water, rivers, and the processes that generate, transport, store, or transform chemicals and aquatics that concern society.

Faculty research provides opportunities for students to partner with professors and their collaborators, and to expand their professional networks through stakeholder contacts provided by faculty in their role as GP advisors, and by GP clients through their interactions with students.

Farmers have no way of knowing how much water they’re using or how much they may be wasting.

California’s current drought and the need to conserve water in its $50-billion-plus agriculture industry, which accounts for 80 percent of state water use, is behind one project at the energy-water nexus involving Bren professor Roland Geyer, an expert in industrial ecology and life-cycle assessment, and adjunct professor Bob Wilkinson, a water-policy expert who spends much of his time advising California water districts, the state legislature, and government agencies. They are working with a private start-up, a state government agency, and researchers at UC Davis and the UCSB Institute for Energy Efficiency on a project aimed at testing the products of PowWow Energy. The new business was started by a UCSB engineering alumnus who uses large data sets to deliver important water information to growers interested in conserving water and saving money.

Every day, millions of gallons of water are delivered to California’s agricultural fields via groundwater pumps, which have no meters and may leak. As a result, farmers have no way of knowing how much water they’re using or how much water — and electricity — they may be wasting, and at what cost. PowWow Energy collects data from electricity bills to quantify how much water the pumps deliver and also to detect leaks by identifying water use during times when the pumps are off. It then provides real-time information to farmers via text message in the case of a pump failure, a leak, or other important site-specific water-related updates.

Professor Arturo Keller and Sustainable Water Markets Fellows take in the Las Arenitas Treatment Wetland during a tour of several restoration sites along the Colorado River in Mexico. Photo: Leslie Sanchez
Government is a big player in the environment. National, state, and local government entities have much to say about climate change, energy, water, pollution, land use, fisheries management, and a myriad of other environmental focal points. Every day, Bren faculty and students collaborate with governments and government agencies on work that may affect policy and the state of the environment. Here are a few examples.

**NOAA: DEEP DIVE INTO PARTNERSHIP**

The National Oceanic and Atmospheric Administration’s links to the Bren School include Group Projects, internships, employment, research, and fellowships.

Three Master’s Group Projects have partnered with NOAA to address the problem of container ships striking whales in the Santa Barbara Channel. Photo: John Calambokidis

The most successful Bren School partnerships have an impact at multiple levels. They leverage the strengths of individuals. They lead to other partnerships that expand the reach of proven approaches. They complement the school and its partners in their respective missions. They support the Bren curriculum and Bren students in their professional pursuits. And they link the school powerfully to the world beyond academia.

Partnership has long connected the Bren School to the National Oceanic and Atmospheric Administration (NOAA) and the Channel Islands National Marine Sanctuary (CINMS), which lies just offshore of the UCSB campus and is administered by NOAA.

Since 2001, CINMS has been the client for eight Bren Master’s Group Projects (GPs), collaborating with other NOAA entities that include the National Marine Fisheries Service and other California marine sanctuaries.
The Chumash-Bren partnership began in 2007 and is now stronger than ever. Kelly Schmandt Ferguson (MESM 2008) is Environmental Director at the Environmental Office. Julie (Randall) Colbert (MESM 2009) is a water-quality specialist with nearly eight years of service to the tribe. Lars Davenport (MESM 2012) was an environmental specialist through fall 2015, when he took a position with the City of Ventura, first-year MESM student Erik Martinez is an Environmental Specialist, and Bren School interns continue to support the Chumash environmental work, which has received enthusiastic support from tribal leaders. "The Bren folks do more than I can list," says Chumash Tribal Administrator William "Willie" Wyatt. "Without them, our environmental programming would not be as robust. If more tribal communities had this kind of relationship with local universities, we might see a lot more positive results."

Bren and Chumash partner for environmental leadership

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Partner in Reserves

NOAA’s Sean Hastings brings Bren students and alumni into the agency

Sean Hastings, Resource Manager of the Channel Islands National Marine Sanctuary (CINMS), which is administered by the National Oceanic and Atmospheric Administration (NOAA), has had a lot to do with the long-term success of the partnership linking the Bren School with those government entities. Hastings is the perfect partner and mentor for Bren MESM students, whose professional pursuits will require them to bring an array of subject matter and skills to their work, which will often involve interacting with multiple stakeholder groups. Hastings earned a bachelor’s degree in environmental studies from UC Santa Cruz and then worked for the California Coastal Commission before looking for a master’s program, with the goal of “working in the coast and ocean realm to advance conservation and sound management of the California coastline.”

“Through the Bren School,” he says, “I can share a little of my experience, but more importantly, expose students through Group Projects or coursework to the real-world issues we face today. Each Group Project brings me four to five eager, interested, capable master’s students who are perfectly trained to work with us,” he adds.

Every day roughly 15,000 new chemicals are added to the Chemical Abstracts Service Registry, which recently entered the 100 millionth compound onto the list. While it is likely that only a small subset of those chemicals are produced in volume, says Bren professor Sang-won Suh, “The truth is that we don’t know exactly how many chemicals are out there. And because government regulations generally do not require it, information about the potential environmental and health risks that new chemicals may pose is scarce.”

That’s where the Chemical Life Cycle Collaborative (CLiCC) comes in. Funded by the US Environmental Protection Agency, the $5 million, approximately five-year project is an ambitious collaboration being led by Professor Suh and fellow Bren School professor Arturo Keller. It is aimed at understanding the life-cycle impacts of new chemicals.
PARTNERING WITH NGOs

Non-governmental organizations play a unique role in environmental management. Dean Steve Gaines refers to them as “enablers who are truly partners and good at what they do.” They’re on the ground. They serve as local eyes and ears for distant researchers. They understand the culture, the landscape, and the politics of a place. They have a good idea of what will work, what won’t, and why. They advocate for the communities they know so well. Here are several stories about the power of partnering with NGOs to address environmental challenges.

PIVOTAL PRESENCE
Two NGOs play crucial roles in furthering fisheries management

Overfishing is a global problem that greatly affects fishing communities and especially small-scale fisheries in the developing world. These communities often lack the resources — tools, funding, regulations, and enforcement — to manage their fisheries sustainably. Fish Forever, funded by the Waitt Foundation and others, is a program linking the NGOs Rare and the Environmental Defense Fund (EDF) with the UCSB Sustainable Fisheries Group (SFG), co-founded by Bren School dean, Steve Gaines, and Bren professor Christopher Costello to design and implement solutions in small-scale fisheries, starting in Belize, Brazil, Indonesia, Mozambique, and the Philippines. A look at the Philippines, where some twenty Fish Forever projects are under way, reveals the value of NGOs in addressing fisheries challenges.

Fish Forever combines social marketing with territorial use rights fisheries (TURFs) and no-take reserves to enable residents, especially those in developing tropical countries, to manage their near-shore fisheries sustainably. The project evolved out of conversations between Rare CEO, Brett Jenks, and Gaines, who serves on the Rare Board of Trustees. They discussed combining social marketing and scalable, transferable, science-based approaches to fisheries management that could make a difference in a growing global problem. EDF, which has world-leading expertise on rights-based fishery management, has published books on the subject, and has worked with SFG previously, provided the critical third piece.

In Fish Forever, EDF provides technical expertise and practical experience in rights-based systems and fisheries management. Rare builds the capacity of organizations and governments to generate support for change, particularly to adopt sustainable fishing practices and improve the effectiveness of no-take zones, or reserves. UCSB brings expertise in fisheries science and innovative biological and economic assessment techniques.

“The first value of partnerships is the range of expertise and perspective each partner brings,” says Rocky Tirona Sanchez (see page 13), vice president in Rare’s Philippines office, which has a staff of fifty. “We’re coming at it from different places.”

The Fish Forever approach involves two key elements: Territorial Use Rights for Fishing (TURFs) give fishers exclusive rights to a designated fishing area, thus incentivizing good management, while reserves allow populations of overfished species to recover. Neither TURFs nor reserves can solve every fishery problem on their own, but used in combination in a “TURF-Reserve,” they show great promise when adapted to local conditions. Across Rare’s first twelve pilot projects in the Philippines, the abundance of coastal fish species increased by an average of 47 percent within fish recovery zones in two years.
People make partnerships happen. They are the doers who drive projects from concept to execution. Those in key partnership roles may have to switch focus regularly from big picture to small detail, work with varied internal and external stakeholders, and bridge the gap between home-office ideas and reality in the field. In the work that the NGO Rare does in many parts of the world from its offices in Arlington, Virginia, people like Rocky Sanchez Tirona, Rare’s Vice President in the Philippines, are critical.

In the fisheries work Rare is conducting in the Philippines with the Bren School (see opposite page), Tirona has participated in strategic and tactical discussions about everything from mapping how intensively fishers are using gear to high-level concepts on how to approach conservation in the archipelago nation.

“The big challenge in the Philippines is that we’re a lot of people,” she says, adding that the fishing pressure in many less densely populated regions of the world pales in comparison.

\[Image \text{ Cl: Embedded at Bren} \]

As a Bren PhD student in economics pursuing the UCSB Economics and Environmental Science emphasis, Jonah Busch (PhD 2008) worked extensively with Lee Hannah, a Bren School adjunct professor and a senior scientist for Conservation International (CI) who has maintained an office at Bren Hall since 2004.

\[Image \text{ TNC: Land and Sea} \]

The Nature Conservancy (TNC) is one of the world’s most influential NGOs. Working both on land and in the sea to secure and protect habitats and the life forms that depend on them, TNC has been a Bren School partner for years.

\[Image \text{ CEC: A Partner from the Start} \]

The local, grassroots-oriented Community Environmental Council (CEC) has been a Bren School partner literally since the school opened its doors. The relationship has perfectly demonstrated the symbiosis of effective partnership.

\[Image \text{ Wolves and Humans: Seeking a Balance} \]

A partnership to address issues around wolves’ reappearance in California

Wolves were reintroduced into Idaho and near Yellowstone Park in 1995 and 1996. Since then, their numbers have grown and packs have dispersed. In 2015, for the first time since wolves were eradicated from the state in the early 1900s, a pack was discovered in the Mt. Shasta area of Northern California. More wolves will follow, representing a major victory for wildlife conservation but also foreshadowing complications at the human-wildlife interface.

Ever since the first wolves were reintroduced in the nineties, the NGO Defenders of Wildlife has worked with ranchers and government agencies to develop and implement plans to protect property and wolves, which occasionally prey on livestock. Now, a Bren Group Project is supporting that work.

\[Image \text{A Rare Partner in the Philippines} \]

The NGO’s woman in Manila has to shift her focus quickly between home-office ideas and reality in the field. In the work that the NGO Rare does in many parts of the world from its offices in Arlington, Virginia, people like Rocky Sanchez Tirona, Rare’s Vice President in the Philippines, are critical.

In the fisheries work Rare is conducting in the Philippines with the Bren School (see opposite page), Tirona has participated in strategic and tactical discussions about everything from mapping how intensively fishers are using gear to high-level concepts on how to approach conservation in the archipelago nation.

“The big challenge in the Philippines is that we’re a lot of people,” she says, adding that the fishing pressure in many less densely populated regions of the world pales in comparison.
FUNDING FOR A COLLABORATIVE FIRE STUDY

Bren School faculty lead a multifaceted approach to improving wildfire management

Every year, and especially in the arid western part of the United States, wildfires burn hundreds of thousands of acres, destroying property and costing lives. Billions of dollars are spent controlling and recovering from those fires. And it’s intensifying. The duration of fire season in the western states has expanded in the past 45 years from an average of five months in 1970 to seven months today. More acreage is also being burned. From 2000 to 2050, studies suggest, climate change may increase the acreage burned by 50% to 70% in western states and by 100% to 150% in the Southwest. And even as we gain knowledge about fire’s environmentally beneficial effects, a changing climate, increased fuel (resulting from decades of fire prevention), and budget constraints combine to make wildfire policy increasingly contentious.

Two years ago, as part of an effort to expand cross-disciplinary research opportunities for faculty, Bren School dean, Steve Gaines, set aside funds for a seed project called the Strategic Environmental Research Initiative (SERI). The first SERI project, SERI Fire, was led by three Bren professors — political scientist Sarah Anderson, natural-resource economist Andrew Plantinga, and watershed hydrologist Naomi Tague. They spent a year working together and with researchers from other institutions, including UC Berkeley fire ecologist Max Moritz and University of Washington fire researcher Maureen Kennedy. They studied the science, history, economics, and politics of managing fire-prone landscapes and hosted a professional conference on wildfire at Bren Hall.

As part of SERI Fire, the researchers applied for funding from the National Science Foundation (NSF) to study more deeply the issues identified during the initial collaboration. Last summer, the group was awarded a four-year, $1.7 million Hazard Science, Engineering and Education for Sustainability (SEES) grant from NSF for an ambitious project to support land-use agencies in their wildfire management decisions. The researchers will take a unique interdisciplinary approach by investigating the links connecting public response to wildfire, landscape management and related political pressures, and the ecosystem consequences of wildfire that translate into human hazards.
**PARTNERING WITH RESEARCH/EDUCATION**

Realizing that the UC system’s first school of environmental science and management would be cross-disciplinary by nature, the Regents sited the Bren School at UCSB, which was known for having few barriers between disciplines. Since then, the Bren School has constantly reached across this campus and to others across the country and around the world to collaborate. The Bren School has close ties to Engineering, Life Sciences, Geography, Earth Science, Economics, Political Science, and many other UCSB departments. In this section, we introduce a few of those partnerships, beginning with a novel engagement in China.

**THE CHINA CONNECTION**

The Bren School and its partners in China seek ways to address climate change

“For virtually every environmental challenge on the planet, the two biggest players are the U.S. and China, so if we can’t get those two players involved in solutions, we’re not going to solve those problems. Given the scale of the problem, we could have no bigger impact than by seeding solutions in these two countries.”

That was Bren School dean, Steve Gaines, describing the importance of the Bren School’s nearly six-year-old engagement with Chinese counterparts. It began at a time that was not particularly promising.

Prior to the joint statement on climate change issued by President Obama and China’s President Xi Jinping in November 2014, China and the U.S. had been having trouble coming to terms on climate change. So the Bren School engaged. Beginning in the 2009-2010 academic year, one Master’s Group Project (GP) addressed environmental issues in China. Another led to a group of Bren students’ visiting China.

For their project the students worked with their client, the environmental consulting firm AECOM, a Bren School Corporate Partner, and the City of San Buenaventura (Ventura) to develop a software model called SAFEGUARD. The software supports local community officials who are responsible for meeting the requirements of state environmental laws, such as AB 32, California’s Global Warming Solutions Act, in prioritizing strategies to reduce greenhouse gas (GHG) emissions.

The SAFEGUARD group advisor was Professor (now emeritus) Oran Young. He was then heading the nascent Sino-American Working Group, which was partnering with Chinese counterparts to address climate-change mitigation. He continued to visit China regularly and to work with Chinese colleagues on issues of governance. Young thought it would be valuable for the SAFEGUARD team to meet — and share their software with — like-minded students and researchers, including Lingxuan Liu, a Chinese PhD student at Bren, accompanied the Bren students on their trip to China, during which they sought “to find common language” so that the SAFEGUARD software could be fine-tuned for use in a Chinese setting.

The importance of the trip, Young said at the time, “lies particularly in building relationships and connections among early-career professionals. Those relationships will likely lead to additional opportunities in the future. We can have all the papers and messages of intention we want, but getting people on the ground to connect and form relationships seems critical to making real progress.”

“The Group Projects we’ve done in the past with China have shown students that if you put a problem on the table and start thinking about solutions in the context of the U.S. and in the context of China, there are some things that work in both places and others for which context matters in a big way,” says Gaines. “If you don’t think about this diversity of context, you’re not going to solve the problem.”

In 2015 Gaines, assistant professors Kyle Meng and Mark Buntaine, post-doctoral researcher Cody Szuwalski, and other Bren School representatives visited China. The result has been partnerships related to fisheries management and climate change, and an initiative to share the Bren School model at Nanjing University.
The Long-Term Ecological Research Program (LTER) was established by the National Science Foundation (NSF) in 1980 to address ecological questions that cannot be resolved with short-term observations or experiments. LTER projects are distinguished, therefore, by being long-lived. They are also located at sites chosen to represent major ecosystem types. They generate a great many partnerships and collaborations; some last for weeks or months, and others continue for a decade or longer. NSF currently supports 25 LTER projects around the world. Most are in the U.S., and UCSB is the only university that hosts two, one a long-term study of coral reef ecosystems in French Polynesia, and the other, a study of the coastal kelp forest in Southern California. The kelp forest is important both economically and environmentally. One of the fastest-growing plants on Earth, kelp provides protection, habitat, and food for a wide variety of marine creatures, and is harvested for use in a range of food and other products.

Because kelp grows relatively close to shore, it can be affected by pollutants, nutrients, soil, and other materials that enter the ocean in runoff water from land. Bren professor John Melack is a co-principal investigator for the land component of the 16-year-old Kelp Forest LTER. He has worked with researchers from various UCSB departments, including Environmental Studies; Ecology, Evolution, and Marine Biology; Life Sciences; Geography; and the Bren School. “The essence of our [land-focused] partnerships has been that watersheds inherently integrate the movement of materials and solutes, and we have had a common goal of understanding how and when materials are moved from the landscape to the ocean,” Melack explains.

Not too long ago, it was commonly thought that solving environmental problems meant coming up with good solutions. If the solutions were smart, sensible, and addressed the problem in a sound way, it was thought, they would be adopted.

Today, that belief seems almost quaint, for as Bren professor of political science Sarah Anderson notes, developing good solutions is only part of the process. “The solutions are often out there; they’re just not getting implemented,” Anderson says.

It turns out that for good ideas to become policy requires political will, and that requires communication. But it is not enough simply to talk or write about a policy or a solution. Researchers in this area have shown that one key to generating political will is explaining the approach using concepts and language that resonate with the perspectives and values of specific stakeholder groups.

“We need to think about audiences in political terms, because liberals and conservatives often respond differently to the same message,” Anderson says. “We need to be asking, ‘Is this a message that will resonate with both, or do I need to tailor my message to specific audiences?’”

But what are those values, and what language works? Those are moving targets, and hard to nail down. UCSB professors in the departments of Political Science, Psychology and Brain Science, and at the Bren School are collaborating to address the various social and political obstacles to adopting and implementing effective environmental policies.

The effort began in 2013 as part of the Crossroads program funded by UCSB Graduate Division. Upon completion, it was continued as the Psychology, Environment, and Public Policy (PEPP) Research Workshop.
It has become axiomatic that successful collaboration requires effective communication. That is why ever since the Bren School opened, communication has been a constant and expanding focus. The expansion continued when Lisa Leombruni, PhD, was hired in fall 2015 to manage the Bren School’s Strategic Environmental Communication and Media Focus.

A true “multi-disciplinarian,” Leombruni earned a bachelor’s degree in biology from Brandeis University and then “worked in a bunch of labs.” But finding herself more interested in the human element of science, and especially “how people make decisions on climate and energy policy,” she next earned a Master of Environmental Science degree from the Yale School of Forestry.

While at Yale, she served as an environmental advisor to the Mission of Tonga at the United Nations. At the time, Tonga and other nations in the Alliance of Small Island States were trying to make the point that something needed to be done about climate change because their countries were already being inundated with salt water.

“They’re the canary in the coal mine,” Leombruni says. “It’s a compelling story with lots of science and multiple NGOs involved, and people are suffering.” But it was invisible in the media, leading her to wonder, why is this a non-issue?

Realizing that policy is important but that communication intended to inform policy is critical, Leombruni shifted to focus on the subject of effective science communication. “I wanted to know how to change the conversation around a topic, and I saw a huge lack,” she says. “There were no programs for it; few were actively thinking about it.”

Leombruni knew the science but wanted expertise in communication theory so she could understand how to reach stakeholders and leverage environmental narratives to create action. She completed a PhD in communication at UCSB, focusing on how people form attitudes about climate change.
SEA SOLUTIONS
How three Bren School groups are leveraging innovative research to benefit people, economies, and the marine ecosystems on which they depend

The multiple marine-focused initiatives at the Bren School bring together a wide range of partners to address a variety of marine-conservation challenges.

An entire Bren School program — the Latin American Fisheries Fellowship Program (Laff) — was designed to train interdisciplinary marine-resource managers who want to pursue related careers in Latin America. Laff has attracted PhD and MESM students from Peru, Brazil, Chile, Costa Rica, Columbia, Mexico, Ecuador, Venezuela, Spain, and the United States.

Laff students become part of a network of fishery professionals and have opportunities to partner with the Sustainable Fisheries Group (SFG), which has implemented projects at fifty field sites in seventeen countries.

SFG was founded in 2006 by Bren School dean, Steve Gaines, and Bren School professor of resource economics Chris Costello as a collaboration with the UCSB Marine Science Institute. Their intention was to apply innovative science to improve the sustainability of marine resources and coastal communities.

“SFG is a `think-and-do tank,’” says Bren School alumna and SFG program director, Michaela Clemence (MESM 2011). “We are breaking out of insular thinking; we’re equally interested in research and practice.”

“The research coming out of SFG is focused on solutions,” says Gaines. “There’s a lot of talk about the challenges the world faces in terms of overfishing and unsustainable fishing practices. But there are a lot of solutions, and that’s what gets me excited.”

Aquaculture will clearly play an important role in solving one problem: meeting the world’s growing need for protein. In 2015, Bren professor and marine ecologist Hunter Lenihan founded the Sustainable Aquaculture Research Center (SARC) to address questions of sustainability related to aquaculture. The SARC team works with multiple partners, including SFG, in its efforts “to balance societal, environmental, and ecological objectives in aquaculture operations.”

As SFG economists develop theoretical models related to the impacts of aquaculture, Lenihan and his SARC colleagues collect field data to test the theory in practice. “They do the theory, create the models, and think about general questions,” says Lenihan. “We’re thinking about using the theory to address specific questions in an empirical way.”
The Bren School benefits greatly from having partnerships with the following affiliate groups:

**Dean's Council**

“A huge part of this partnership is building bridges,” says Dean Steve Gaines. “Dean’s Council members bring in new people who lead us to new project areas and create additional links in the local community and across the country.” New Bren connections that Council members generate with businesses, government agencies, and others may result in funding for the school and for students (whom many Dean’s Council members support) as well as student opportunities for internships and jobs.

**Eco-Entrepreneurship Council**

The business experts who make up the Eco-Entrepreneurship (Eco-E) Advisory Council support Bren students in the Eco-E focus. Members are often current or retired business owners, investors, or serial entrepreneurs who pursue the council’s mission, which is to “guide, support, and promote” students and their business ideas. Each academic quarter, a panel of council members comes to the Bren School to serve as a sounding board for Eco-E students as they pitch their business models to the panel.

**Council of Legal Advisors**

The Council of Legal Advisors ensures that Bren students receive a solid legal education even without a law school on the UCSB campus. In some ways, the council’s approach serves Bren students better than would the coursework they’d find at a university where environmental students take classes at a law school. Bren courses are not an environmental add-on for an aspiring attorney, but are tailored to fit the specific needs of future environmental professionals.

**Corporate & Foundation Partners**

The Corporate & Foundation Partners Program builds partnerships linking the Bren School to businesses and a variety of other entities having an interest in environmental sustainability. Partners value the access to university resources that partnership provides, as well as the opportunity to interact with Bren faculty and students, and each other about new practices, the latest research, and innovative approaches to shared environmental challenges.

**Bren Alumni Advisory Council**

This group was created in 2012 to guide, promote, and support the Bren School and alumni in particular. The BAAC, which is currently drafting bylaws and devising a process for new-member involvement, is poised to become an important vehicle for partnership.

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**Legacy of Partnership**

Deborah Schwartz is a dedicated Bren School partner — just as her mother was.

In 1967 Naomi Schwarz was a stay-at-home mother and the wife of an MIT post-doctorate fellow who had moved his family west from Boston to become faculty chair of UCSB’s Linguistics Department. Two years later, she was an engaged activist, gathering signatures in a successful campaign to establish the California Coastal Act and the state Coastal Commission, following the disastrous Santa Barbara oil spill. Naomi would go on to chair the commission, spend 18 years working for California state senator Gary K. Hart (10 years as chief of staff), and serve three terms as First District Supervisor for Santa Barbara County.

Naomi’s daughter, Deborah Schwartz, remembers the oil spill as a defining moment. “My interest in the environment goes back to that time,” she says. “It was environmental Armageddon in my backyard. My mother talked to me about the frailty and temporal nature of life, and taught me that when an opportunity appears, however it arrives, we have to engage.”

Her mother had responded to the oil spill by taking action that would lead to a long and successful political career. Early in the Bren School’s history, she was invited to be part of the nascent Dean’s Council, created to support, promote, and guide the school while also serving as its primary connection to the community at large.

“As my mother engaged and cultivated council members, I became aware that Bren was a special place,” Deborah recalls.

Deborah faced one of her toughest personal challenges after her mother died in 2012 following a surgical procedure. But recalling her words about seizing opportunity, Deborah soon enthusiastically took up her mother’s mantle of involvement with the Bren School.

“Her parting gift to me was the opportunity to inherit her connection with Bren, to be more involved with the school, to develop my own relationship with it, and to pay it forward,” she explains.
Given that there are now more than one thousand Bren alumni, it’s not surprising that graduates often encounter each other in the course of their professional activities.

Recently, we heard from Melissa Harris (MESM 2009), who works for the U.S. Bureau of Reclamation, which operates some 348 reservoirs and delivers 10 trillion gallons of water per year to wholesale contractors in the western U.S. Developing water resources is a key element of its mission. Harris said that as project manager for a reservoir scoping project called the Upper San Joaquin River Basin Storage Investigation, she had come across several Bren alumni: Elizabeth (Ayres) Vasquez (MESM 2003), Erica (Eisch) Meyers (MESM 2009), Andrew Minks (MESM 2013), and Jake Sahl (MESM 2013).

Harris’s work is related to the San Joaquin River Restoration Program (SJRRP), which is part of the massive CALFED Bay-Delta Program restoration effort. The result of an 18-year federal lawsuit, the SJRRP is intended to restore flow to a 153-mile stretch of the San Joaquin River. That section currently runs dry for much of the year because of existing water-management infrastructure. The goal is to restore a self-sustaining Chinook salmon fishery there while minimizing adverse water-supply effects for current water users. All the Bren alumni she has encountered either play or have played a role in the SJRRP.
GREEN CYCLE
The Bren School–UCSB Sustainability Partnership fires on all cylinders

Walk into the Ellison Hall office of Mo Lovegreen, Director of UCSB Campus Sustainability, and you may find her meeting with one of several Bren alumni who work in various important campus sustainability roles.

Jordan Sager (MESM 2009), Sarah Siedschlag (MESM 2011), Andrew Riley (MESM 2012), Matthew O’Carroll, and Jewel Snavely (both MESM 2013) interact regularly with Lovegreen, each other, the Bren School, the rest of their sustainability colleagues, and nearly every department and administrative unit on campus to ensure that UCSB continues to provide environmental leadership in higher education.

Bren alumni are having an environmentally favorable impact at other universities, too. Fahmida Ahmed (MESM 2006) is the Sustainability Manager at Stanford, and John Onderdonk (MESM 2003) is Director of Sustainability Programs at the California Institute of Technology. Nick Kordesch (MESM 2007) and Jenny Low (MESM 2013) hold the position of Sustainability Coordinator at San Francisco State and Occidental College, respectively.

Each of the various parts of the UCSB sustainability whole — whether solid waste management, building energy efficiency, or water use — has a strong link with the Bren School, and the Bren alumni employees both reflect and drive that connection.

In a sense, nearly all of the many partnerships the Bren School has across the UCSB campus began with Lovegreen, who, as the original Bren employee, is a different kind of Bren “alumna.” “I was the first person hired and I hired everyone else,” she laughs.

After ten years working as part of a team to open and operate the school and complete Bren Hall in 2002, she was tapped by Chancellor Henry T. Yang to focus on green-building and energy-efficiency issues across campus.

Since then, a steady stream of Bren students have served internships in various sustainability roles on campus and have worked on Group Projects to support UCSB and UC system-wide sustainability efforts. As full-time employees, they have hired more Bren students as interns, lectured at Bren, and been clients and advisors for Group Projects.

Most of the current employees got their foot in the door with UCSB Sustainability while still at Bren. Sager, UCSB’s Campus Energy Manager, did a year-long internship that began during his first year and then continued after he graduated. During his six years as a full-time UCSB employee, he has been the client for a Group Project that developed an incentive-based system for utility billing on campus, has advised on others, and has hired Bren interns. During a conversation in his office in late February, a UCSB Environmental Studies (ES) graduate and first-year Bren student Cora Kammeyer (MESM 2017) checked in briefly before heading to a meeting. She found her way to an internship in Sager’s office in Facilities Management via a recommendation she received while taking a LEED lab class in ES that was being co-taught by Bren student Brandon Kaysen (MESM 2016). It is hard to find an area of UCSB sustainability that does not have a link to the Bren School.

“We have Matt, Jewel, Sarah, and Andrew, so we’re sharing the Bren pedigree,” Sager says, adding that he interacts most frequently with O’Carroll, a fellow Facilities Management employee. “Because we both went to Bren, I know that I can talk with Matt about certain things, like eutrophication of the lagoon, and he’s right there. We can cut to the chase,” he says.

Green team (from left): Bren alumni Jordan Sager, Sarah Siedschlag, and Andrew Riley; Mo Lovegreen, the first Bren School staff member; and Bren alumni Matthew O’Carroll and Jewel Snavely.

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Bren news

Environmental defense Fund.

is now three. Ann is approaching Alexander’s older brother, Leo, on November 4, 2015.

California Landscape Contractor’s Choice, Best in State award from the environmental services company — for professional infrastructure and environmental remediation. Eleven Engineering, Inc. is headquartered in eight offices in the Western U.S. Ryan has been with Cardno — a professional infrastructure and environmental-services company — for more than 15 years.

In July 2015, Ryan Harding (MESM) left his position as General Manager of Northern California at American Integrated Services to start a new venture with his wife, Wendy. They now have a certified general-engineering construction firm that specializes in demolition and environmental remediation. Eleven Engineering, Inc. is headquartered in Petaluma, California.

In 2003, Megan (Williams) Schwartz (MESM) has co-founded Catalyst Environmental Solutions, a full-service consulting firm based in Santa Monica that opened for business in January 2016.

2006

Kristi Birney (MESM) is now working at the Bren School as Associate Director of Career Services and Alumni Relations. (See page 3.)

After graduating from the Bren School, Jennifer Lipscomb (MESM) returned to the Navy for flight school and has spent the past ten years as a helicopter pilot. Five duty stations and four deployments later, Lieutenant Commander Lipscomb is transferring into the Navy’s Foreign Area Officer Program. In 2014 she picked up a second master’s degree in International Relations and African Studies from the Naval War College, and this summer she is moving to Naples, Italy, to serve as 6th Fleet liaison with the U.S. Africa Command.

2007

Dan Sussman (MESM) lives in South Lake Tahoe with his wife, Patricia, and their two-year-old daughter, Ariella. He works as chief of the TMDL/Basin Planning Unit for CalEPA’s Lahontan Regional Water Quality Control Board. Dan and Trish are excited for Ariella to become a big sister in early summer.

2008

On September 5, 2015, Josh Simmons (MESM) married Angie Hacker in Cambria, California. The couple now lives in Carpinteria, where Josh owns an environmental and sustainability consulting and legal-services business and Angie leads Santa Barbara County’s energy and sustainability initiatives.

1998

Daniel Wilson (MESM) continues to win awards at his company, Wilson Environmental Contracting, Inc. The most recent honor was the Judge’s Choice, Best in State Award from the California Landscape Contractor’s Association.

1999

Ryan Pingree (MESM) was recently promoted to West Business Unit Manager for Cardno’s Government Services Division. In this position, Ryan is responsible for over 125 staff located in eight offices in the Western U.S. Ryan has been with Cardno — a professional infrastructure and environmental-services company — for more than 15 years.

2002

Ann Hayden (MESM) and her husband, George Peridas, welcomed their second son, Alexander, on November 4, 2015. Alexander’s older brother, Leo, is now three. Ann is approaching her fourteenth year with the Environmental Defense Fund.

2003

Jeff Phillips (MESM) has been working for the U.S. Fish and Wildlife Service since he graduated from the Bren School. He met his wife, Mandy, in 2006, and the couple later moved to the North Shore of Oahu, where they had their son, Pierce, in 2009. The family moved back to Santa Barbara in 2010, and Jeff now serves as Deputy Assistant Field Supervisor for the U.S. Fish and Wildlife Service in Ventura.

Das Williams (MESM) and his wife, Jonnie Williams, happily welcomed their daughter, Ya’Ash Williams, into the world on September 11, 2015. Das continues to work in the California State Assembly as the elected representative for the 37th District. He also serves as Chair of the Assembly Natural Resources Committee, where he works to prevent oil spills in California and plan the state’s clean-energy future.

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2009

Heather Abbey Tenneson (MESM) married Ryan Tenneson in their hometown of Morro Bay, California, in January 2013. On April 10, 2014, the couple gave birth to twin girls, Kailani and Willow. The couple has lived in Eagle River, Alaska, for the past four years, where Heather worked as the Alaska Regional Refuge Ecologist for the U.S. Fish and Wildlife Service. On January 29, the family of four moved to Kaua‘i, where Heather recently accepted a new position as the Refuge Manager for the Kaua‘i National Wildlife Refuge Complex.

Lucas Johnson (MESM) is enjoying his role as Western Regional Manager for 475 High Performance Building Supply in Seattle, Washington. Lucas and his wife, Dr. Megan Anne Carney, welcomed their first child, Hazel Marley Johnson, into the world on January 5, 2015, and also purchased and retrofitted a dilapidated home in Seattle to be, Lucas says, “a flagship of sustainability and urban resilience.”

2011 — Shivira (Tomar) Choudhary (MESM, middle right) married Prateek Choudhary last December in New Delhi, India. Close friends (from left) Sydney Ward, Fiona Teng, and Erin (Masuda) Toyoshima (all MESM 2011) traveled from San Francisco, New York, and Los Angeles respectively to join the wedding celebration. Shivira and Prateek now reside in Santa Barbara.

2016 — Das Williams (MESM) and his wife, Jonnie Williams, happily welcomed their daughter, Ya’Ash Williams, into the world on September 11, 2015. Das continues to work in the California State Assembly as the elected representative for the 37th District. He also serves as Chair of the Assembly Natural Resources Committee, where he works to prevent oil spills in California and plan the state’s clean-energy future.
Willa Ausubel (daughter, Prairie Children) and her husband, Jon, welcomed their first baby, Brandon Parker Poon, on March 14, 2015. He made his Bren debut at the 2015 Master’s Project Public Presentations.

Melissa Ausubel Grossman, turned one in December, and their son, Clay Aster Ausubel Grossman, is now four years old.

Vicky Wiraatmadja (MESM) married David Umberg on October 17, 2015, with several other MESM 2012 alumni attending. Vicky and David live in San Francisco.

In fall 2014, Sarah Stark (MESM) worked with partners Bryan Latchford and Jessica Mikitarian (both MESM 2013), to transform their Eco-E concept, “Smartty Pantz,” into a nonprofit. Since graduating from the Bren School, Smartty Pants has raised more than $20,000, developed a new website, hired interns, and brought on multiple advisors to its educational and production space. The team is excited to announce the launch of its first episode of an original series called Smartty Pants News.

On May 1, 2016, Morgan Visalli and Jocelyn Christi (both MESM) will begin a 1,200-mile trek along the California Coastal Trail to raise awareness about the new trail and build a connected community of coastal stewards. Alisha Amrhein (MESM), who plans to spend the summer traveling around California with her dog, Noah, is excited to play a role in the “Mojo Coastwalk.” She will meet up with the hiking pair every few weeks to deliver supplies, help with press events, and to surf and share some beach fun.

Stephanie Falzone (MESM) is happy to be living back in the Bay Area, where she grew up. She accepted a job as project manager for PlantRight - Sustainable Conservation in February, and now works to stop the sale of invasive plants at nurseries throughout California.

Following her graduation from the Bren School, Graham Wesolowski (MESM) joined the Land Trust for Santa Barbara County as a Conservation Associate. In this role, Graham is responsible for managing the Land Trust’s annual easement monitoring program, generating a computer mapping system, and helping with the important work of seeking out new protection opportunities.

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- Dehlsen Associates, LLC
- Farm Bureau of Ventura County
- Figueroa Mountain Brewery
- Irvine Ranch Conservancy
- LooTree, Inc.
- Natural Reserve of Orange County
- Professional Environmental Marketing Association
- Santa Barbara Foundation
- Santa Barbara Urban Creeks Council Inc.
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Bren Partnerships
This 24-page issue is dedicated to the partners and partnerships, the collaborators and collaborations that enable the Bren School to make a difference.

PARTNERSHIPS WITH:

Business
Because corporations and other businesses have a tremendous environmental impact, their environmentally favorable actions do, too. See how the Bren School partners with businesses to help them address their environmental challenges.

Government
From local to federal, the Bren School engages with government entities on every level, providing cutting-edge science and innovative thinking to help them fulfill their role as stewards of the nation’s natural heritage.

NGOs
Non-governmental agencies are the foot soldiers in conservation. They are out there, on the ground, identifying problems and serving as the eyes and ears for distant researchers. Read about NGO partnerships that are critical to important Bren School work.

Research & Education Centers
From nanoparticles and energy efficiency to long-term ecological studies and efforts to bring the social sciences into environmental policy-making, partnerships linking Bren School researches with their academic colleagues yield results far beyond what could be achieved by one individual having a single perspective.

Alumni
Bren graduates move quickly in their professional lives, landing good jobs, hitting the ground running, and rapidly moving up the ranks. Soon, they become the ideal external partners. See how these members of the Bren family leverage their Bren connections to solve environmental problems.

The Bren School is looking for inspired environmental problem-solvers.

Do you know a professional who wants to take his or her career to the next level, someone who wants to have a greater impact by qualifying for a higher-level job or a broader range of jobs? If so, let us introduce them to the Bren School. You can start by sharing this issue, which demonstrates the value of a Bren School degree.

Our friendly admissions staff is ready to guide prospective students through the admissions process and support them in preparing a polished application. We are also happy to arrange for applicants to visit the school and speak personally about it with students and faculty.

Learn more at www.bren.ucsb.edu. Contact the Bren School admissions staff at admissions@bren.ucsb.edu or 805-893-7611.

“Bren prepared me for this work. When I work with EPA scientists, I know what they’re saying and can translate it into layman’s terms for attorneys who don’t necessarily have that knowledge.”
— Benjamin Carr (MESM 2010)
Special Agent,
US EPA Criminal Investigation Division

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