

Humboldt

The Magazine of Humboldt State University | Fall 2014

HSU Welcomes
New President
Lisa A. Rossbacher





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ON THE COVER: New President Lisa A. Rossbacher in HSU's legendary art hallway.

THESE PAGES: A foggy day at Moonstone Beach, with a special appearance by President Rossbacher's Doberman pinscher, Tango (far left).

from the President

I COULD NOT HAVE IMAGINED, in June 1985, how Humboldt State University would become such an important part of my future.

My husband and I first visited Humboldt that summer, on a geology field trip to study active geological processes in Redwood Country, and we fell in love with this area. We were living in Southern California at the time, and Dallas and I imagined finding a way to live in this part of the state. Our careers as geologists and educators took us other places—including, most recently, Georgia—but we always remembered the people and landscape of Humboldt County.

When I first heard that Humboldt State would be looking for a new president, I knew I had to look into it, and it didn't take long to decide it was a good fit. Well, maybe a great fit.

Now, having been here since mid-July, I recognize what a very special opportunity this is. We have something unique here at Humboldt State University. World-class programs with a personal touch. A wonderful campus in a great community. People who value social justice, individual responsibility, and the natural environment. And a deep connection with the landscape, the history, the geology, and the culture.

I knew, from those past visits to the area and more recent research, what a remarkable place HSU is. Even so, I have encountered many surprises as I explore the campus and meet people. For example, did you know we have Moon Trees on campus? They have grown from seeds that orbited the moon on Apollo 14 in 1971.

The campus has a foundry, where students and faculty members cast thousands of pounds of aluminum and bronze every year. We also have a hydrogen fueling station designed by students. Students and a professor are currently measuring gravity at distances of just a few microns (a human hair is 70-75 microns in diameter). Humboldt State has the world's top experts in redwood forests. We have one of the leading scholars of tropical mushrooms. And of skunk odor.

Despite our remoteness, we convince some really amazing performers to come to campus. This upcoming year, CenterArts is presenting Colbie Caillat, Neil deGrasse Tyson, the Wailin' Jennys, and many others.



Humboldt State also serves a remarkably diverse population for such a rural campus. About one-third of our students are from traditionally underrepresented groups—and just last year we were officially designated a Hispanic-Serving Institution. Humboldt is consistently rated a Military Friendly School, and we have recently been rated LGBT friendly and vegan friendly. It's great to make the “welcoming and friendly” rankings, as well as the many “best of” rankings.

For all the new discoveries I have made, many things haven't surprised me at all. The most important is the incredible passion and caring spirit I've found on campus. The faculty and staff I talk with are energized by the work they're doing to make sure students get a great education and have a memorable experience at HSU.

I see my job as making sure that we build on Humboldt's strong foundation. We need to focus on improving and on figuring out how we can be the best university to serve our students. Fortunately, we have more than 8,000 students, and every one of them serves

as a reminder of Humboldt State's important mission.

During the 2014-15 academic year, I'll be focused on getting to know more about Humboldt State—meeting with faculty, staff, and students, visiting with alumni and parents, and strengthening relationships with the larger community. If you have ideas or insights you would like to share, please send me an e-mail message at hsupres@humboldt.edu. And I've been sharing my thoughts and observations on social media; if you're interested, you can follow me on Instagram and Twitter through @hsupres.

Thanks, as always, for your ongoing support of Humboldt State. Many of you have known for a long time how this university was part of your future. I had a clue, on that first trip to Humboldt County, and I am thrilled that HSU is part of my present now. I hope to see you on campus soon!

With very best wishes,

Lisa A. Rossbacher, Ph.D.
President

Humboldt

The Magazine of Humboldt State University

humboldt.edu/magazine

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Join us for... HOMECOMING & FAMILY weekend October 3-5, 2014

Friday, October 3

Clubs Fair & Carnival • Homecoming Parade • Pep Rally

Saturday, October 4

Golden Grad Luncheon • Tailgate Party • Football Game

HSU Lumberjacks

vs.

South Dakota School of Mines & Technology Hardrockers

Homecoming & Family Weekend is the perfect time for a Humboldt trip, so mark your calendar for Oct. 3-5!

Registration & schedule at
humboldt.edu/homecoming



LETTERS ARE WELCOME and may be published in upcoming issues of *Humboldt* magazine. Letters may be edited for length and clarity. Send to magazine@humboldt.edu or the address listed below.

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HSU Community Rallies After Bus Accident

ON APRIL 10, the Humboldt State community was devastated by news of a bus crash on Interstate 5 which took the lives of five high school students, an HSU admissions counselor, two chaperones, and the drivers of both vehicles.

The bus was carrying students from all over the state who were participating in the Preview Plus program, which provides high school students who have already been admitted to HSU a chance to visit campus and explore programs.

In the days and weeks following the tragedy, alumni, faculty members, staff, and students sought ways to show their support. One result is a pair of scholarships recognizing the victims' dedication to expanding access to education. They are the Michael Myvett and Mattison Haywood Memorial Scholarship, which honors the two alumni chaperones, and the Arthur Arzola Memorial Scholarship, which recognizes the HSU admissions counselor.

The two funds got off to a quick start, receiving more than \$100,000 in contributions and matching funds from the HSU Advancement Foundation.

All students involved in the bus crash were offered the scholarships. To date, 25 have accepted the offer and are attending during the 2014-15 school year.



LEFT: After the remembrance event, the campus community gathered for a candlelight vigil. **BELOW:** Students, faculty, staff, and community members shared their thoughts and condolences. **BOTTOM:** Hundreds gathered in the UC Quad for a remembrance event to honor the lives of those lost in the bus crash.



Uncovering Evidence of Past Tsunamis in California

DIGGING DEEP IN THE DIRT, two HSU geologists recently discovered a buried treasure invaluable to the scientific community.

HSU Geology Research Associate Eileen Hemphill-Haley, Research Associate Harvey Kelsey, and a team of graduate students discovered an extensive sedimentary deposit formed by a 1946 tsunami. The deposit provides the first known evidence of the event and furthers understanding of the hazards of tsunamis on the California coast.

The Humboldt State group was part of the U.S. Geological Survey's Science Application for Risk Reduction team. Their goal was to search for geological evidence of past tsunamis in marshlands from Crescent City to the Tijuana River.

Their work provides the first evidence that earthquakes along the Aleutian Islands could potentially generate larger tsunamis at other locations on the California coast.

"Evidence of the 1964 tsunami is only found around Crescent City, and not elsewhere in coastal California," Hemphill-Haley said. "That is because the location of the actual earthquake across the Pacific will control where the largest waves may reach our shores."

The history of tsunamis in California only goes back to the late 1700s. Understanding the older geologic history of tsunamis reaching California will lead to a better awareness of the tsunami potential in coastal communities and help local authorities devise improved evacuation plans.

"This study is the most comprehensive paleotsunami exploration project to be conducted in the state of California," USGS geologist Bruce Richmond said. "No one has looked at so many locations over this large of a geographical area."

The study found that strong evidence of tsunamis was absent from most marshlands examined, except for two locations in the state. In Crescent City, new information helped to better define the extent of flooding from a historic tsunami that occurred in 1964 as well as a pre-historic tsunami from 1700. The extensive 1946 tsunami deposit was found near Half Moon Bay, and a third location, Carpinteria Marsh near Santa Barbara, contains multiple sand layers that are still being evaluated for a possible tsunami origin.



A team of HSU geologists examines samples from Orekw Marsh in Redwood National and State Parks.

Provost Snyder Retires

AFTER SIX YEARS as HSU's chief academic officer, Provost Robert Snyder retired at the end



Robert Snyder

of the 2013-14 academic year. "Bob's departure will be difficult for the campus. It will not be easy, to say the least, to recruit a new provost with the same focus, intellect and ability to lead," said President Rollin Richmond, who also retired at the end of the academic year (see *Reflecting on Richmond Era*, spring 2014 edition of *Humboldt* magazine).

Snyder's service at HSU began in 1987, as an instructor in the Philosophy Department. In 2004, he became Dean of the College of Arts, Humanities & Social Sciences, and was named Provost and Vice President for Academic Affairs in 2007.

Psychology Professor on Fulbright to Croatia

PSYCHOLOGY PROFESSOR TASHA R. HOWE will focus on child abuse prevention

as she travels to Croatia's University of Zagreb on a 2014-15 Fulbright Scholarship.



Tasha Howe

Howe will use the award to teach a course on child maltreatment prevention and help develop curriculum. She will also train psychologists and social workers on the latest approaches to assess and treat children at the Conference for the Croatian Psychological Association in Rovinj. Howe will also conduct a series of public lectures and workshops on violence prevention at the University of Zadar.



The Lumberjacks' varsity eight pulled ahead with 500 meters to go.

Rowing Team Takes Another National Title

FOR THE SECOND time in three years, Humboldt State's rowing program achieved the sport's pinnacle, capturing the NCAA Division II National Championship in the spring. The program accounts for two of the five total national titles HSU teams have earned since moving to the Division II level in 1980.

HSU's title came down to an intense three-team battle between the Jacks, 2013 champion Nova Southeastern, and regional rival Western Washington. The Lumberjacks squeezed out the victory by a single point, winning 16-15.

The Lumberjacks' varsity eight secured the win with a determined effort in the grand final, pulling ahead with 500 meters to go in the 2,000-meter event and holding off Nova Southeastern by two seconds at the finish.

Head Coach Robin Meiggs, who has guided the program for 20 years, was recognized as National Coach of the Year for the second time in her career.

Other national championships earned by Lumberjack programs are softball in 1999 and 2008, and men's cross country in 1980.

Research Finds Computers Best at Detecting Concussions

YOU'VE HEARD IT SAID: "It's all in your head." Now an HSU professor has helped develop a way to find out if "it" really is.

Research conducted by Kinesiology Professor Rock Braithwaite has played a big role in showing the usefulness of computerized neurocognitive testing. And that work could change the way the medical community understands the long-term effects of sports-related concussions.

Braithwaite collaborated with former HSU professor Anthony Kontos, now at the University of Pittsburgh Schools of the



Rock Braithwaite

Health Sciences, and two other University of Pittsburgh professors. Their study is considered the largest statistical review of computerized testing to date. It was published in the *Journal of International Neuropsychological Society*.

Braithwaite's analysis focused on computerized neurocognitive testing. He evaluated prior research of published computerized concussion testing—37 studies and 3,960 participants all within the first week of sustaining a concussion. The study produced two key findings:

"ImPACT found the largest effects for individuals who had been concussed—across all outcomes," said Braithwaite. "Memory, processing speed, recall ... ImPACT was able to better detect changes compared to the other computerized tests."

- Middle school and younger high school students show more pronounced effects and greater performance decline after a concussion than senior high school and college-aged counterparts.
- ImPACT—a computerized neurocognitive test designed to assess mild traumatic brain injury—was the most effective at detecting cognitive impairment. It indicates that computerized testing with near-infrared spectroscopy (fNIRS) is the most accurate evaluation method for concussions.

Yellow Submarine Broadens Depth of Ocean Research

HUMBOLDT STATE RECENTLY became the new home of a bright yellow robot submarine that will be used to study marine habitats and organisms up to 3,000 feet beneath the ocean's surface.

The Deep Sea Systems Max Rover is a gift from the U.S. Naval Facilities Engineering and Expeditionary Warfare Center at Port Hueneme, Calif. and was previously used by the U.S. Navy to recover aircraft and drones. Now, HSU faculty and students will be able to use it to conduct a variety of marine research.



The Max Rover will travel up to 3,000 feet below the ocean's surface to study marine habitats and organisms.

"In addition to being a tremendous asset to the university, this rover will help enhance our understanding of Northern California's vast coast line," said Brian Tissot, HSU's Marine Lab Director.

The device will be used in conjunction with the R.V. Coral Sea for teaching and research in fisheries, oceanography, chemistry, engineering, environmental sciences and other disciplines and will also be available for contract work.

Among its features are: the capacity to record and transmit underwater video and the ability to carry equipment and collect marine samples with its mechanical arms.

Tissot said the submarine could be used to explore the continental shelf, survey marine organisms, and assess the health of local fish populations.

"We might even find new species and ecological zones that have never been explored," he said.

The Deep Sea Systems Max Rover is the newest addition to HSU's marine research fleet, which includes the R.V. Coral Sea and the Hammerhead rover, which reaches depths of up to 300 feet.

Campus Receives Grants to Study North Coast Marine Ecosystem

THE CALIFORNIA OCEAN Science Trust has awarded 10 grants totaling \$4 million to state and local agencies for marine research on the North Coast, including Humboldt State University.

The grants are part of the North Coast Marine Protected Area (MPA) Baseline Program, which supports the collection of ecological and socioeconomic information on beaches, reefs and ecosystems on the North Coast. Principal investigators on seven of the 10 projects are HSU faculty members, and several other faculty members will contribute in key investigator roles. Numerous HSU students are also involved.

"Our goal is to protect these areas, and maintain populations of commercially popular fish so that fisheries can remain open," said Zoology Professor Sean Craig, a recipient of one of the grants.

The goal of the MPA program is to establish benchmarks for measuring the performance of the region's new marine protected areas from an ecological and socioeconomic perspective. California Sea Grant administers the program with MPA Monitoring Enterprise, the California Department of Fish and Wildlife, and the California Ocean Protection Council.



Students and faculty from a variety of disciplines are part of a statewide effort to study marine protected areas on the North Coast.

Super Computer is Fast and Green

HUMBOLDT STATE STUDENTS are building the university's second supercomputer—a highly powerful machine that will support hands-on research in a variety of disciplines.

At 115 trillion calculations per second, the computer is approximately 50,000 times faster than a standard laptop and performs 20 billion calculations per watt, making it highly energy efficient. It was funded through the Humboldt Loyalty Fund, which supports things like lab improvements, technology upgrades, special projects, and student travel to academic conferences through family and alumni gifts.

Super computers are notoriously pricey to operate, due to the large amount of electricity needed to power and cool them. HSU's computer uses a water cooling system—water is piped through the computer to prevent overheating—the same technology used by some of the greenest supercomputers in the world, says Mathematics Professor Ken Owens.

For the past several years, Owens, Mathematics faculty member Tim Lauck and a team of students have been using the university's existing supercomputer to research nuclear fusion—the process by which the sun creates energy. With its highly powerful processing speed, the new computer will allow them to work on larger amounts of data and tackle more complex equations.

"It will allow us to do parallel computing, which in this case, means we'll be able to examine many fusion reactions concurrently," Owens says.



Math Professor Ken Owens and his students will use the computer to study nuclear fusion.

Parallel computing allows researchers to break larger problems into smaller chunks, so that many calculations can be carried out simultaneously.

Owens and his students will be contributing to a worldwide effort on how to generate clean energy from nuclear fusion. "By making supercomputer simulations of burning plasma, we're hoping to provide some insight to a growing body of research," Owens says.

Students, Alumni Take Part in Revived Wiyot World Renewal Ceremony

IN MARCH, WIYOT and other local tribal members—including several HSU alumni and staff—participated in a World Renewal Ceremony at Tuluwat Village on Humboldt Bay.

The three-day event on Indian Island, which houses the Tuluwat Village, included traditional Wiyot singing, regalia, dance, and an opportunity for attendees to find closure from a massacre that nearly decimated the Wiyot people in 1860.

"These kind of tragic events affect not just the tribe, but the entire community," said Stephen Kullmann ('09, M.S. Environmental Systems), natural resources director for the Wiyot tribe. HSU sits on the northwest portion of the Wiyot tribe's ancestral territory, which encompasses Little River to the north, Bear River Ridge to the south, and Chalk Mountain and Berry Summit to the east.

After the attack, the island—which was considered a sacred site and the "center of the World" in Wiyot culture—was used as a dry dock for over 100 years, treating boats with chemical preservatives, pesticides, and paints.

In 1970, Wiyot elders began the long process of reclaiming the site from the city of Eureka. The tribe purchased 1.5 acres of the island in 2000 and the city of Eureka gave it 40 acres in 2004. Soon after, natural resource specialists led by HSU alumni began remediating the toxic contamination, culminating in the World Renewal Ceremony this spring.



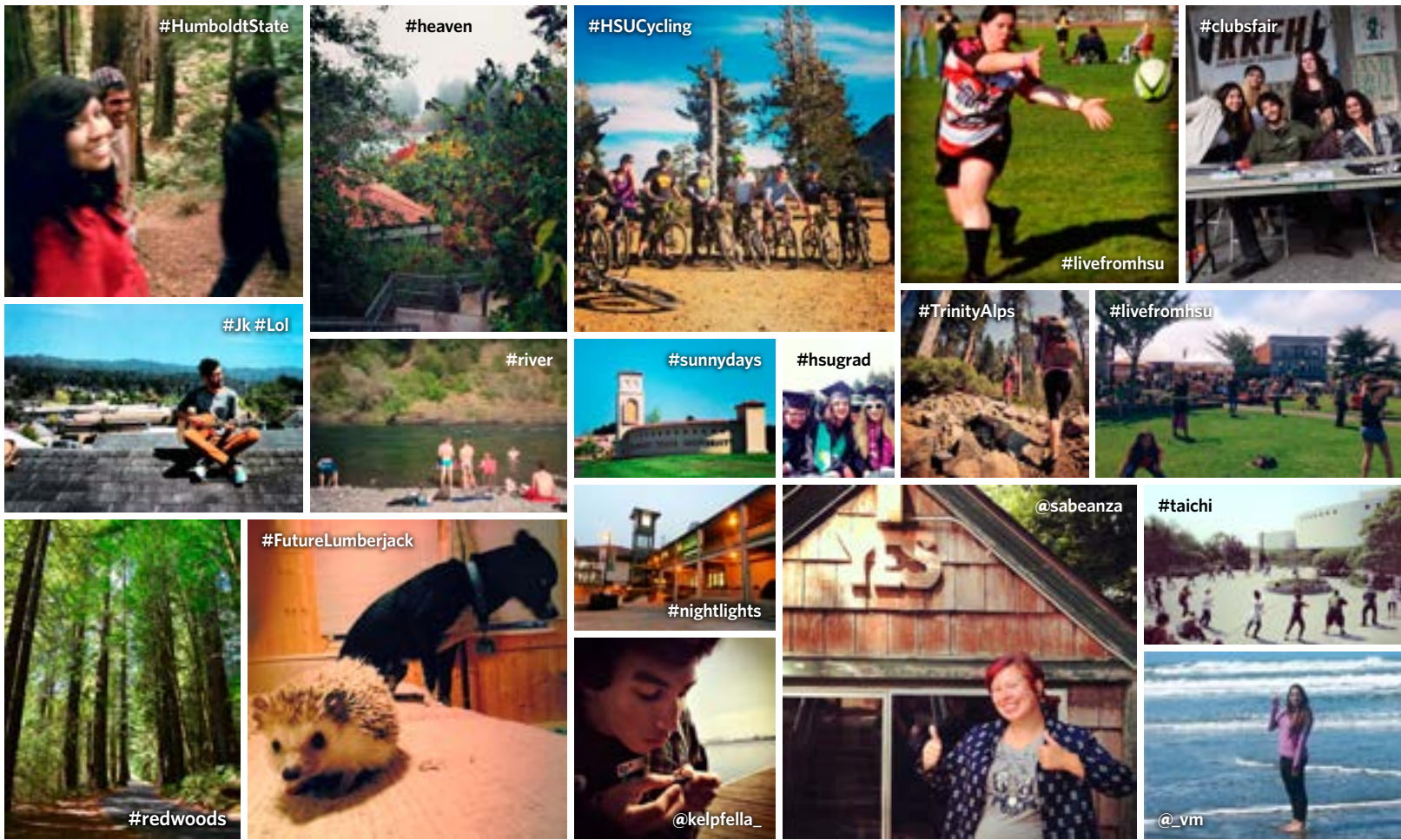
The World Renewal Ceremony included traditional Wiyot singing, dance and regalia.

Humboldt As Seen by Students

On Instagram @LiveFromHSU

THE IDEA: Hand over an official campus social media account to students.

THE RESULT: Live From HSU, an Instagram-based project that gives students a big audience and a chance to share their stories about campus life. Each week, it features a different student.



We ask all Live From HSU contributors: Why are you proud to be a Lumberjack?

I AM PROUD to be a Lumberjack because of everything that being a Lumberjack represents. It represents making environmentally conscious decisions and working in the community.

Jayda Kosar
('18, Zoology)
@jaydanicole7

I'M PROUD TO be a Lumberjack because I wanted to go to HSU since I was 13. I love the area and everything the school stands for. I'm so excited to be around like-minded people.

Thien Crisanto
('16, Environmental Biology)
@tnosaurusrex

I AM PROUD to be a Lumberjack because I love the environment, the people, and the view of the redwoods, beaches and small town. I have had the pleasure of visiting many times and I can never get enough of the campus. I can always find something new.

Vanessa Morena
('16, Social Work & Spanish)
@_vm

I AM PROUD to be a Lumberjack because everyone at HSU works together as a family. Together we join hand-in-hand and fight until the end. I am proud to be a Lumberjack because we are the best out there and I am glad that I bleed green & gold.

Andrew Smith Rodriguez
('18, Biology)
@stuntleadr

Student Recreation Center Rock Climbing Wall

- ▶ HSU's state-of-the-art rock climbing wall is the centerpiece of the Student Recreation Center, located between the Kinesiology & Athletics Building and Redwood Bowl. It features a bouldering area and seven roped climbs, reaching 46 feet high. With a variety of routes, it provides a full body workout for climbers of all experience levels.
- ▶ The cardio area below features over 30 aerobic machines: five recumbent bikes, seven upright bikes, five stairmasters, four treadmills, two rowing machines, 11 elliptical trainers and a mat area for sit-ups and stretching.
- ▶ In the nearby strength training area, you'll find Hammer Strength and selectorized machines, six bench presses, two incline presses, seven squat rack stations with over 10,000 pounds of free weights, seven Olympic lifting platforms with Ivanko Olympic competition bars, over 3,000 pounds of bumper plates and a large dumbbell training area with over 2,000 pounds of weight, including iron grip dumbbells ranging from 5 to 140 pounds.



ADVENTURE — ON THE — HIGH SEAS

Coral Sea Reveals Storied Past

By Dan Pambianco



DURING ITS 40-YEAR existence, Humboldt State's marine research vessel, the Coral Sea, has seen its share of adventures. It's been held captive in a foreign port, served as the headquarters for drug smugglers, and brought back sunken treasure from the Bahamas. For a while, it was also was the home of Mac the Diving Dog.

A science laboratory for HSU students since 1998, the boat could also teach a history lesson. Its current captain, Scott Martin, is delving deeper into the Coral Sea's colorful past, inspired by a phone call he received in January from a relative of its builder and original captain.

"[The caller] had found a lot of information about the boat when he and his wife were going through his mother-in-law's possessions after she had died," Martin says. "He wanted to know if I was interested in it, and I said, 'absolutely.'"

Martin received a box containing newspaper clippings, books, 8 mm film and photographs—all evidence of the Coral Sea's early history. Martin eagerly studied the artifacts, and plans to pursue more information on its colorful past.

"Every captain wants to know as much as possible about his boat's history," he says. "We've gone all through the boat now, and knowing how it has been used before helps understand how it is set up. It's all starting to make sense."

Built in Santa Barbara, Calif., in 1974, the then 85-foot Coral Sea carried its owner and captain, Glenn Miller, on adventures from the Channel Islands to the Caribbean. Joining Miller on board was his springer spaniel, Mac, who was marketed by his owner as the world's first diving dog.

Pursuing his diving interests while dabbling in the entertainment industry, Miller tried to make a star out of Mac. He fitted the springer spaniel with swimming goggles, attached weights and tossed him in the sea. Mac—known by crewmembers as a sandwich-stealing, foul-smelling beast—would walk across the ocean bottom, performing for any interested audience.

Miller outfitted the Coral Sea for luxury so it could live up to its marketing as the "Rolls Royce" of the charter diving business. Its cabin was air-conditioned, it had a helicopter pad, and housed sophisticated equipment, including a desalinization system.

In 1979, Hayward-based dive shop owner Margaret Brandeis chartered the Coral Sea for a treasure-hunting expedition. Along with Miller, his son, Zach, experienced scuba diver Kevin Wong, and a group of investors, Brandeis sailed away on a yearlong odyssey.

It didn't take long before the excitement began. Having sailed into disputed territorial waters off the coast of Colombia, Miller, his crew and



Submitted

passengers were surprised when a Colombian naval ship approached. Miller acted quickly, tossing overboard the \$10,000 black market anti-tank missile he had purchased to defend the boat against pirate attacks.

"I saw this big vessel getting closer, then I noticed it was gray," Wong recalls. "There was something protruding from the bow, and when it got close enough I realized it was a cannon."

Seized by heavily-armed Colombian sailors, the Coral Sea and its crew spent the next six days in port on the island of San Andres, which at the time was claimed by both Colombia and Nicaragua. They were finally freed and allowed to keep the boat, which had been stripped of much of its equipment.

Miller and Brandeis were undeterred by the side trip, taking their assemblage to the Bahamas, where they encountered pirates that had moved in to the leased site ahead of them. After forcing the pirates out of the area, the treasure hunters immediately found silver bars, gems and pieces of eight left behind when the Spanish galleon, Maravilla, sank off Little Bahama Bank in 1656.

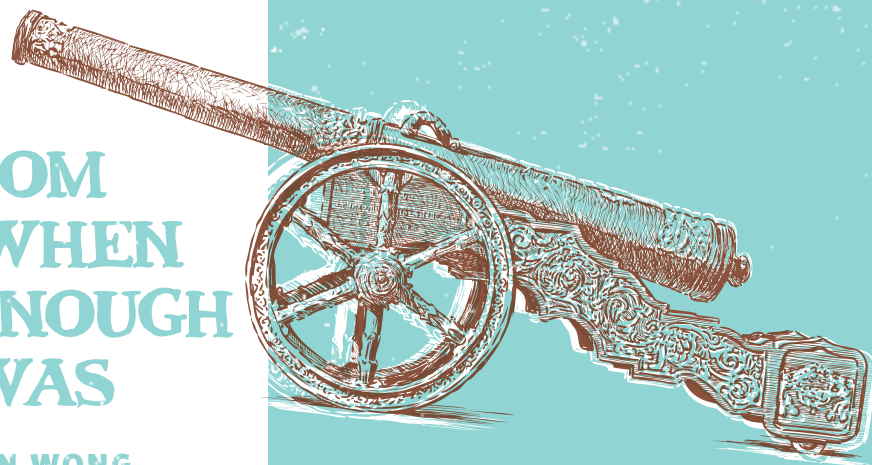
"I made the first dive and came up with a silver bar," Wong said. "I thought, 'We're on our way to an easy life.' But that turned out to be the best day of (treasure hunting) the entire trip."

After spending nearly a year searching the sea floor, Brandeis and her team eventually gave up on finding the contents of the main cargo hold, which had cracked open like an egg, spreading its loot across miles of ocean. They had found just enough treasure to break even after all expenses were paid.

"The bottom line on the treasure hunt is that the people involved got a lot of great tax write-offs," Zach Miller said in a Santa Barbara News Press article published on May 25, 1987.

While Zach captained the Coral Sea on charters out of Ft. Lauderdale, Fla., Glenn took a break from the sea, traveling to Arizona to work as a helicopter pilot on the set of a TV movie, "Deadly Encounter." At the end of shooting one day, Miller took off from the Grand Canyon staging area, heading to Lees Ferry along with three other support staff members. Officials later theorized that he never saw the cable that stretched across the canyon, clipping it with the machine's tail section to send the helicopter skipping across the Colorado River.

"THERE WAS SOMETHING PROTRUDING FROM THE BOW, AND WHEN IT GOT CLOSE ENOUGH I REALIZED IT WAS A CANNON." - KEVIN WONG



Glenn and Zach Miller



Mac the Diving Dog





"THERE IS BEAUTY TO SEE EVERY DAY. THE SIGHTS LEAVE YOU SPEECHLESS. MY WHOLE CAREER HAS BEEN LIKE THAT."

- SCOTT MARTIN



Jacob Fuller and Captain Scott Martin

The accident was the final adventure for Miller, who was 52 years old when the crash took his life. Also killed were Diane Dougherty, 27, and Frank Novak, 49. Lori Lee Gere, the film's assistant costume designer, was pulled from the river and survived.

The filming continued, and "Deadly Encounter," starring Larry Hagman, aired on CBS in December, 1982. The movie ends with a dedication to the deceased members of the crew.

Zach Miller eventually abandoned plans to continue in the diving business, and he and his sister, Cathy, decided to sell the Coral Sea. They found a buyer who soon put it to work as the control center for his private air force of cocaine-carrying planes.

While cruising the Caribbean and Gulf of Mexico, the boat's new owner would radio instructions to his pilots, then quickly leave the area to avoid having his broadcasts traced. In 1984, he and 41 other people were arrested, indicted, and eventually sent to prison for conducting one of the largest drug-smuggling operations in U.S. history. Roughly 400 pounds of cocaine were confiscated, but testimony showed that 16,000 pounds had actually been smuggled into the country.

The Coral Sea was impounded and put up for auction, but Florida officials decided at the last minute to keep the boat. It was extended to 90 feet and modified for scientific studies by the Florida Department of Natural Resources before outliving its usefulness in 1996. With most of the research projects completed or abandoned, FDNR officials hoped to sell the boat—estimated value \$1.5 million—for a minimum of \$750,000.

When no bids were received, the Coral Sea was again shopped around, this time with a much-reduced price limit. More bidders jumped on board following nationwide media attention, and the boat was eventually purchased by Humboldt State for \$418,000 in the spring of 1998.

Martin, captain since 2005, and Jacob Fuller, the boat's engineer for the past three years, have enjoyed adventures of their own, admittedly on a less grand scale. They've ridden the waves of the Pacific, enjoying marine life and helping hundreds of Humboldt State students learn about the ocean.

"Probably the most amazing thing I've seen is a baby killer whale being taught how to hunt by its parents," Fuller said. "It was right between them, copying every movement. One of the bigger ones came right up next to the boat and turned on its side so it could see us. It just drifted there for awhile, checking us out."

One of Martin's most memorable moments came early in his time at the helm of the Coral Sea. In 2008, he and students on a bird-watching expedition helped free a gray whale that was tangled in fishing lines. But each trip provides memorable experiences, Martin said.

"There's beauty to see every day," Martin said. "The sights leave you speechless. My whole career has been like that." **H**

R.V. CORAL SEA SPECIFICATIONS

Built in **1974** by Lindwell Boatworks, Santa Barbara, Calif.

Rebuilt and extended to **90 feet** in length in 1992 by LaForce Shipyard, Bayou LaBatre, La.

Purchased by HSU in **1998**

Beam: **22 feet, 4 inches**

Propulsion: Two 2006 Cummins KTA 19 M, each producing **500 horsepower**

Fuel capacity: **6,281** gallons

A-frame Hoist: **2-ton** maximum load

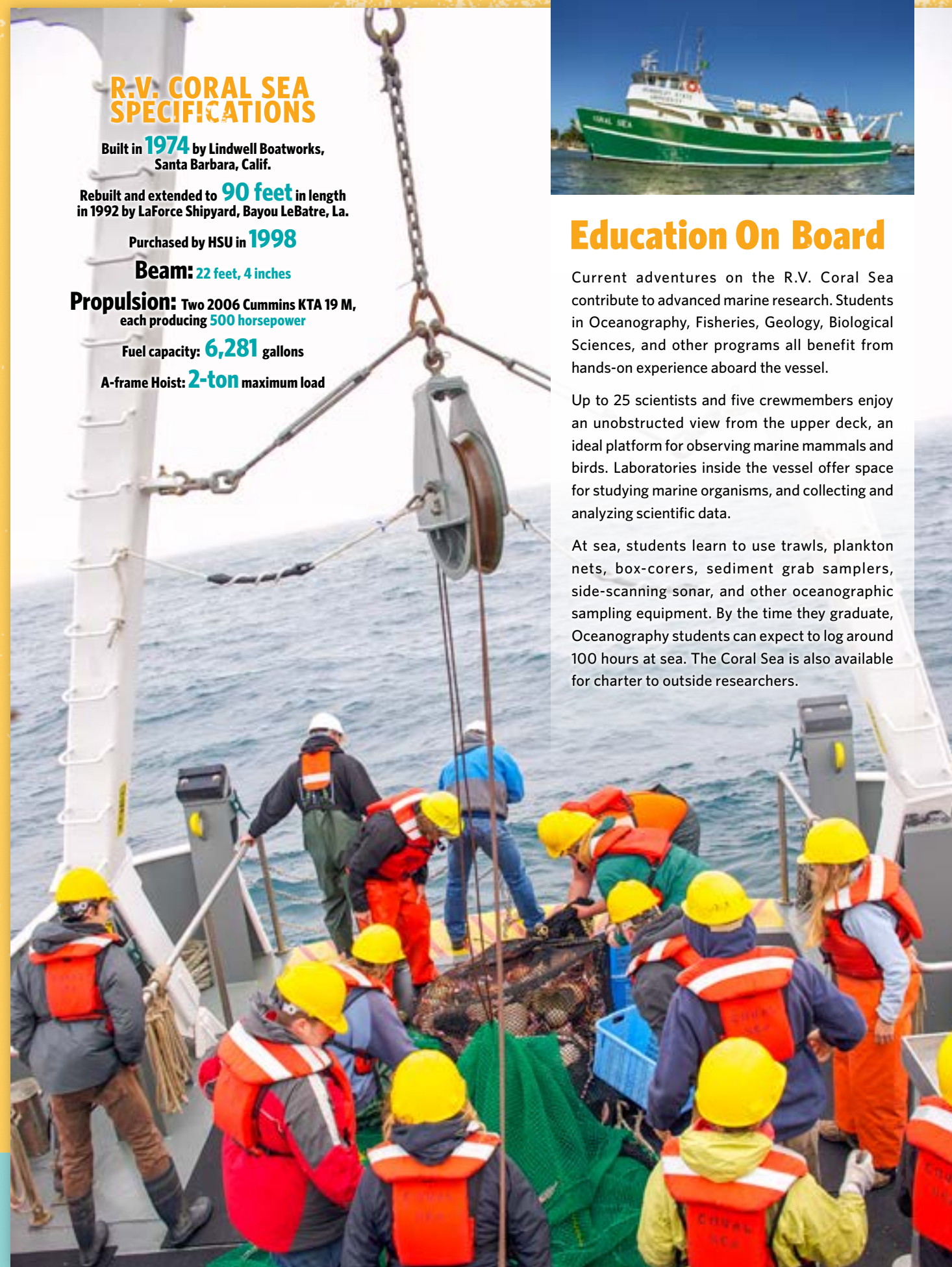



Education On Board

Current adventures on the R.V. Coral Sea contribute to advanced marine research. Students in Oceanography, Fisheries, Geology, Biological Sciences, and other programs all benefit from hands-on experience aboard the vessel.

Up to 25 scientists and five crewmembers enjoy an unobstructed view from the upper deck, an ideal platform for observing marine mammals and birds. Laboratories inside the vessel offer space for studying marine organisms, and collecting and analyzing scientific data.

At sea, students learn to use trawls, plankton nets, box-corers, sediment grab samplers, side-scanning sonar, and other oceanographic sampling equipment. By the time they graduate, Oceanography students can expect to log around 100 hours at sea. The Coral Sea is also available for charter to outside researchers.





from **WASTE** to Wisdom

Can Biomass Energy Extraction Go Mainstream?

By Arianne Aryanpur

Wood chips, dead trees, branches, and tops left after timber harvest operations are typically burned or left on the ground to rot. But what if you could turn all that material into energy—to fuel your car or even heat your home?

That's the idea behind a multimillion-dollar research project being led by HSU Forestry Professor Han-Sup Han. For the next three years, HSU students, faculty, and a team of researchers from around the country will study the potential of forest residues. Their goal? To find an easy, economical way to convert all that untapped waste into renewable energy.

PHOTO: Cutting wood samples, known as “cookies,” for moisture testing back in the lab.

A team of researchers—including HSU students, academics, forestland managers, and industry partners from around the country—is looking at the best ways to process, transport, and convert that **WASTE** into energy.

“WATER, THAT’S THE MOST IMPORTANT THING,” explains Forestry graduate student Joel Bisson from the driver’s seat of the white Ford Explorer.

It’s early morning, and Bisson and Forestry Professor Han-Sup Han are driving to a remote expanse of forest east of Korb, Calif., owned by Green Diamond Resources Company. The narrow, dirt road winds through stands of Douglas fir, redwood, tanoak, and western hemlock.

“When you’re in the field by 5 a.m. and not back till 5 p.m., you don’t wanna forget the water,” he says.

Bisson is one of a handful HSU students studying the energy potential of forest residues, the name given to woody biomass—tree limbs, tops and chunks—left on the forest floor after timber harvesting.

Also known as slash, the material is typically piled and burned. But a team of researchers—including HSU students, academics, forestland managers and industry partners from around the country—is looking at the best ways to process, transport, and convert that debris into energy.

Also known as
SLASH,
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Their research is being funded through a \$5.88 million grant from the U.S. Department of Energy—one of the largest ever received by HSU. It’s also part of the Biomass Research and Development Initiative (BRDI), a partnership between the Department of Energy and the U.S. Department of Agriculture to support renewable energy research in the rural United States.

In recent years, researchers have identified woody biomass as a highly promising source of clean energy. “When utilized correctly, forest residues have the potential to supply energy and reduce greenhouse gas emissions,” says Han, the grant’s principal investigator. “The key is proper harvesting and management techniques.”

Collecting woody biomass can also mitigate catastrophic wildfires in California, which have grown in number and severity in recent years due to climate change and forest overgrowth. The environmental and economic toll has been staggering. According to the Bioenergy Association of California, wildfires in the state have affected an average of more than 900,000 acres per year and cost taxpayers \$1.2 billion annually.

Despite the numerous benefits of utilizing forest residues, researchers are quick to note the barriers to large-scale adoption. They say a major issue is the low quality of existing forest residues. “A lot of what we see has a high moisture content, which makes them heavier and eventually more costly to process,” explains Anil Kizha, a postdoctoral researcher



“When utilized correctly, forest **RESIDUES** have the potential to supply energy and reduce greenhouse gas emissions.”

Forestry Professor
Han-Sup Han



CLOCKWISE FROM TOP:
Adenise Ulchak, a foreign exchange student from Brazil, helps characterize woody material near Korb, Calif.
• An in-woods grinding operation to process slash for hauling to a power plant.
• A close-up of “hog fuel” produced from slash grinding.
• Forestry Professor Han-Sup Han (left) and Arne Jacobson (right), director of the Schatz Energy Research Center, are lead investigators on the \$5.88 million grant.



studying the physical properties of woody biomass through the grant. A lot of it is contaminated by sand, dirt, and other environmental factors, making it less favorable and more expensive to handle.

On a recent day, Kizha was testing a variety of techniques—such as log scattering and stock piling—to determine the best method for reducing moisture content in woody biomass. He is



TOP: Wood chips derived from forest biomass are a promising source of renewable energy. **BOTTOM:** SERC engineers (left to right) Kyle Palmer and Greg Chapman work with a torrefier that converts forest waste into energy-dense material which can replace coal in power plants.

one of the six team members working with Han this summer. The group includes undergraduates, two graduate students, a postdoctoral researcher, and a foreign exchange student. Adenise Ulchak, is an undergraduate student. She's here through Scientists without Borders, a program that brings Brazilian students to the United States.

For Ulchak, the hands-on experience has been invaluable. "This work has exposed me to different operations and machinery we don't have in Brazil," she says. "There, most of my time is spent in a lab."

Another challenge for forestland managers is the cost of processing and transporting forest residues to conversion

sites, says Arne Jacobson, the director of HSU's Schatz Energy Research Center (SERC) and a lead investigator on the project. A trip can take hours and cost more in gas than the value of the material. "One of our goals is to reduce the cost associated with the transportation by converting the material at or near field collection sites," he says.

To do that, they're examining mobile conversion technologies that turn woody material into biochar, pellets, and briquettes in the forest. That material provides heat and energy.

In recent years, SERC has been on the forefront of biomass technology development. One example is a project for Blue Lake Rancheria where the Schatz Lab is leading the design and installation of a local distributed biomass energy system. SERC researchers also recently unveiled the RePower Humboldt planning project, which identified biomass as an important renewable energy resource in Humboldt County. According to the report, woody biomass is already being used to "meet 25 to 35 percent of ... local electricity demand, and there is potential to expand."

In California as a whole, woody biomass accounts for a much smaller percentage of energy generation. According to U.C. Berkeley's Woody Biomass Utilization Group, forest residues mainly fuel the state's 30-35 biomass power plants, which account for just two percent of the state's electrical generation capacity.


At this point, the U.S. biomass market is also much smaller compared to European countries like Finland and Sweden. In those countries, bioenergy accounts for 20 and 16 percent of consumption respectively, according to the European Biomass Industry Association.

Mike Alcorn, a chief forester with Green Diamond, agrees. His company has been harvesting woody biomass for several years and says the domestic market for selling woody biomass just isn't there. "Our best option at this point is foreign markets," he says.

But things could be changing, especially with recent federal legislation aimed at alternative energy and reducing the risk of wildfires. In 2004, the departments of Agriculture and Interior implemented several initiatives to improve forest health by thinning biomass. And in 2005, the National Energy Policy Act recommended that federal agencies increase the production of biomass, wind, geothermal, and solar power.

Although the potential is there, there's still a public perception issue, says Ted Bilek, an economist with the US Forest Service and a lead investigator on the grant. He says that some people believe biomass collection harms wildlife and the environment.

"It's not enough that the technologies work and produce energy," Bilek says. "We need to make sure they're economically viable, socially acceptable, and environmentally sustainable."

Kizha says that forests in the United States are growing every year. "Collecting biomass allows us to come in to replant along with utilizing the woody residue for energy production," he says. "And at the end of the day, a healthy forest is a managed forest." 

Turning Forests into Fuel

WOODY BIOMASS is a general term that includes forest residues—tree limbs, stumps and brush—left on the forest floor after timber harvesting. Woody biomass can also come from urban waste like pallets, furniture, and yard waste.

Mobile conversion technologies turn woody biomass into a more energy dense material.

- Biomass + Gasification → Biochar**
- Biomass + Pyrolysis → Torrefied Pellets**
- Biomass + Densification → Briquettes**

These energy-dense materials (i.e. biochar, pellets, or briquettes) can then be burned to create energy. During the process of gasification and pyrolysis, some gases can be captured and used in the conversion process.

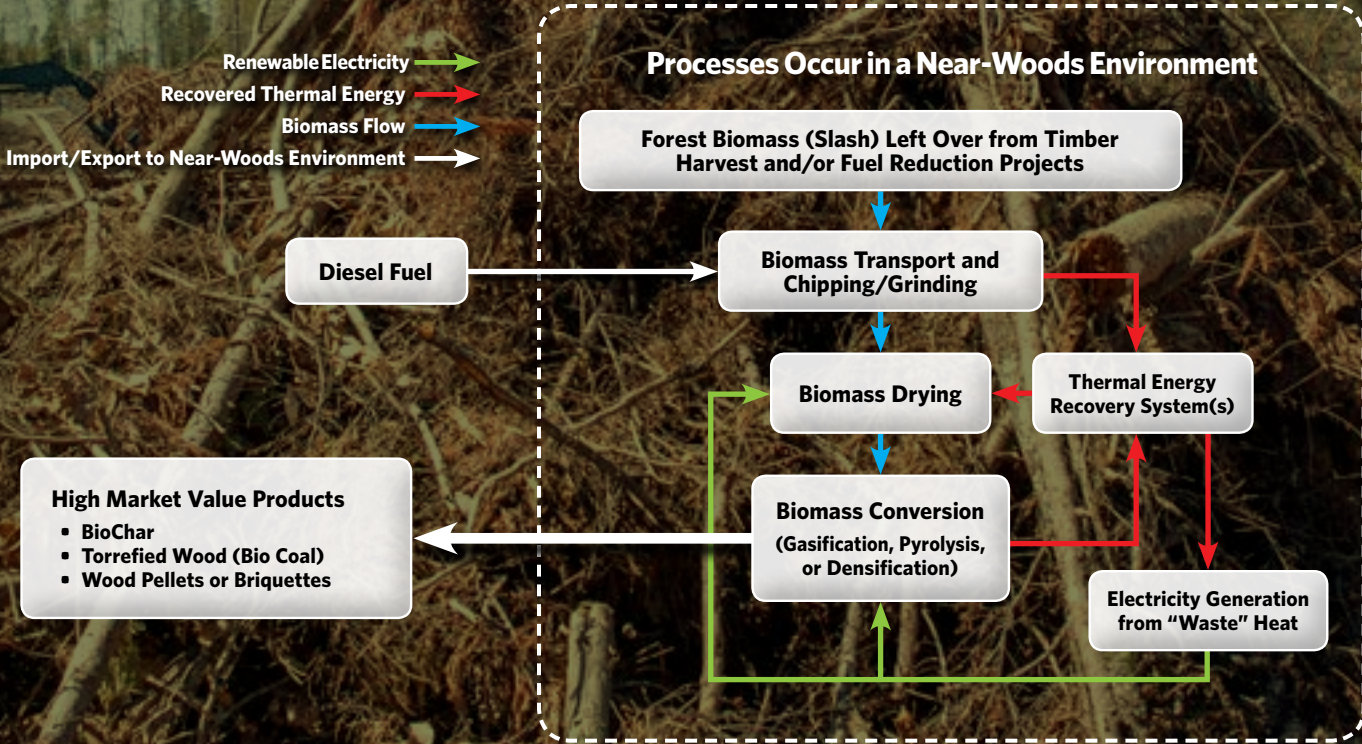
Advantages of Utilizing Woody Biomass

- Renewable resource
- Reduces burning woody biomass after a harvest
- Reduces dependence on foreign oil
- Reduces the risk of wildfires
- Restores forest health
- Reduces the amount of herbicide needed to regenerate managed forests
- Supports local economy

Barriers of Utilizing Woody Biomass

- Low-quality material
- High cost of processing and transporting
- Lack of markets
- Lack of knowledge

Converting Biomass into Energy





Introducing Humboldt's New President

By Arianne Aryanpur

It's Humboldt State University President Lisa Rossbacher's first day on campus and she's grabbing a bite to eat in the College Creek Marketplace. Although the campus is practically empty for the summer, a few students are at the deli buying lunch.

Rossbacher, who's never one to pass up an opportunity to connect with someone, introduces herself and they begin to chat. They talk about their majors and interests outside class. She asks them about their plans for the future.

That kind of openness is typical of the new president. Friends and former colleagues describe her approach as smart, friendly, and accessible.

“She’s brilliant and a strong leader, but she’s also very compassionate and down to earth. It’s kind of the perfect combination.”

— Alana Kyriakakis



Trying on some shades with *Lumberjack* editor Israel LeFrak.

“PEOPLE ARE INTIMIDATED by her because she’s the president,” says Alana Kyriakakis, a former colleague. “She’s brilliant and a strong leader, but she’s also very compassionate and down to earth. It’s kind of the perfect combination.”

Rossbacher, who arrived on campus July 14, is HSU’s first female president. She was also the first female president at her previous institution, Southern Polytechnic State University (SPSU) in Georgia, where she served for 16 years.

The path that brought Rossbacher, her husband, Dallas, and Tango, their 8-year-old Doberman pinscher, to Humboldt State has been roundabout, she says, and also years in the making.

“We always knew we were going to come back to California,” says Rossbacher, who first visited the North Coast in the 1980s and fell in love with the place. “We just didn’t know how long it was going to take.”

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BORN AND RAISED in Virginia, Rossbacher is the eldest of three daughters. She attended elementary and middle school on a naval base, where her father was a civilian researcher for the Department of Defense.

“The education I got there was incredible,” she says. “Every day I was in the library reading and writing. I remember the librarian would sneak me books because I had read everything in the little kid’s section by third grade.”

Rossbacher’s love of literature continued at Dickinson College in Pennsylvania, where she planned to major in English. But everything changed freshman year when she took a geology class on a whim and fell in love with the discipline. One of the things that drew her to geology, she says, was “the language of science, the vocabulary and the words.”

From there, she went on to earn two master’s degrees—one in Geological Sciences from the State University of New York at Binghamton and one in Geological and Geophysical Sciences from Princeton University, where she also earned a Ph.D.

It was also around that time that she met Dallas Rhodes, a geology professor at the University of Vermont. They met at a conference, but it wasn’t until a few years later that they reconnected and started dating. By then, he was teaching at Whittier College in Southern California. “He didn’t remember meeting me at first,” says Rossbacher. Several years later, they were married.

Soon after, the two lived in Scandinavia for a year and both held research appointments at the University of Uppsala in Sweden. They returned to California a year later, and she accepted a geology teaching position at the California State Polytechnic University in Pomona.

A few years into her appointment, Rossbacher came to an unsettling realization. “The only other people I knew on campus were my department members and other science faculty who happened to teach classes on same floor of the



CLOCKWISE FROM TOP: Rossbacher’s mother was an English major and helped instill her love of reading. (Rossbacher is on the left and her younger sister Amy is on the right.) • After taking a geology class at Dickinson College on a whim, she fell in love with the discipline. • Rossbacher’s group of interviewees for NASA’s Astronaut Candidate Program, at the Johnson Space Center, in 1984. (Rossbacher is fourth from the right.) • On a field trip to Death Valley with a Whittier College student.

science building,” she says. “That didn’t really fit my idea of what working at a college or university should be about.”

As luck would have it, Rossbacher got a call that summer from then-Cal Poly Pomona President Hugh LaBounty. He was conducting a long-range planning study for the university and wanted Rossbacher to lead it.

“He said, ‘If you agree to do this, I have to warn you that you’re going to have to take a year off teaching, you’re going to have to work with faculty, staff, students, alumni, and community people,’ ” she recalls. “And I said ‘yes.’ ”

From there, Rossbacher made a gradual transition from the classroom to administration. Over the next 11 years, she held various leadership positions in higher education—Associate Vice President for Academic Affairs at Cal Poly Pomona, Vice President for Academic Affairs at Whittier College, and Dean of the Faculty at her alma mater, Dickinson. In 1998, she took the helm of SPSU.

Kyriakakis believes Rossbacher’s early scientific training—in a traditionally male-dominated field—prepared her for leadership. “She’s still very true to that scientist side of herself. She gathers the data, processes the information and then makes a decision or communicates based on the information she has gathered. She doesn’t act out of ego or emotion but rather what she thinks is best outcome for a particular situation.”

At the same time, she embraces all of who she is. “She’s compassionate and thoughtful and that was the key to her success at SPSU,” Kyriakakis says. “She puts a high value on a sense of community and appreciates everyone’s contribution.”

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IN HER 16 years at SPSU, Rossbacher became known as a trailblazer. “She’s truly a rock star of a president,” Kyriakakis says.



CLOCKWISE FROM TOP: Rossbacher's geological research took her on field trips around this country, including to California's Carrizo Plain with her roommate from Princeton University, Dr. Lisa Pratt. ■ With Sting, SPSU's mascot, and former University Counsel Alana Kyriakakis. ■ On the trail to the Hike Inn, an eco-lodge in the North Georgia mountains that requires a five-mile one-way hike to reach. ■ At a rehearsal for the Nutcracker with the Georgia Ballet in 2009.

One of the first things Rossbacher did after arriving was start a women's basketball team. "We had no women's sports at SPSU," she says. "My husband warned me, 'You should have no illusion they're going to have immediate success.' " In the longer term, the team did, and the Lady Hornets advanced to the regional NAIA tournament the last three years in a row, finishing the 2013-14 season ranked 29th in the NAIA Division I Coaches' Poll.

In 2007, Rossbacher cleared another hurdle when she became the first president of a public university in Georgia to sign the American College and University Presidents' Climate Commitment to reduce SPSU's carbon footprint. "It was a big thing because Cobb County is one of most politically conservative counties in the country," says Jim Cooper, SPSU's Assistant Vice President for University Communications. "But she won the community over."

"We always knew we were going to come back to California. We just didn't know how long it was going to take." — President Rossbacher

Whether it's relating with students or the community, communication is one of Rossbacher's strong points, says Cooper, who's also a good family friend. "It's very important to her. She really cares about how her message resonates with people and how it's received," he says. "And she's always trying to innovate and get better."

A few years ago, for example, SPSU changed the format of its prospective student open house. Instead of a traditional welcome, the event incorporated a late night talk show with a faculty rock band. "She was totally supportive of that idea—a lot of presidents wouldn't be—and it was wildly successful," Cooper says.

Another one of Rossbacher's priorities at SPSU was maintaining strong external ties—she chaired the Cobb Chamber of Commerce and was active in the Marietta Kiwanis Club. On campus, her tenure saw big gains in enrollment—from 3,678 to 5,021 students—and more than \$100 million in new facilities, according to the *Marietta Daily Journal*.

On campus, Rossbacher was a familiar and friendly face. She was well known for sending hand-written notes to colleagues and staff and making it known that she valued everyone's contribution. She frequently brought Tango to meetings and walked her on campus. "People would approach her, pet the dog, and have a conversation," Cooper says. "It was her open door policy."

Husband Dallas Rhodes

Perhaps unsurprisingly, Rossbacher's husband, Dallas Rhodes, shares her love of Dobermans, travel, and geology.



In fact, Rhodes, who was previously Department Chair of Geology and Geography at Georgia Southern University, plans to continue his research on the San Andreas Fault at Humboldt State.

A more recent passion, he says, is the issue of food insecurity, which has become a problem on college campuses around the country. "We not only need to make sure kids have enough to eat, but also that they have access to proper food and recipes," he says.

Fun Facts

► **A DOBERMAN FAMILY** The president and Dallas' first Doberman—Obie Wan Ka Dobie—was a rescue dog from California that ended up in Georgia. Tango was born in Georgia and now lives in California. She loves big trees, rivers and chasing squirrels. And yes, she has a Twitter account. Follow her @TangoTakes2.

► **TAKE ME OUT TO THE BALLGAME** "Dallas grew up in Missouri and is a lifelong Cardinals fan. When we got married, he required two things as a prenuptial agreement. I foolishly asked for nothing. He demanded that I learn how to score baseball and I could only root for the St. Louis Cardinals."

► **JILL-OF-ALL-TRADES** Before deciding on higher education, Rossbacher was a science reporter for National Public Radio in Washington, D.C. (listen to audio at magazine.humboldt.edu) and a finalist in NASA's astronaut candidate program.

► **ONCE A WRITER** Since 1988, she's penned a bi-monthly column for *EARTH* magazine. She also authors a blog on leadership in higher education at higheredleadership.wordpress.com.

► **10,000 STEPS A DAY** She's a firm believer in staying active, which is why she tracks her steps every day with a Fitbit.

► **THE GREAT OUTDOORS** From an early age, Rossbacher attended a conservation education summer camp sponsored by the Virginia Federation of Garden Clubs. She eventually became a camp instructor, teaching everything from botany to ornithology. It was where she developed her love of the environment and the outdoors.

Six Questions

Favorite rock?

Gneiss (pronounced "nice"). It has evolved through heat and pressure. The crystals have been reoriented and grown. It's a wonderful metaphor for people and organizations as they undergo change but maintain the same fundamental composition.



[such a gneiss rock]

Coffee or tea?

Coffee in the morning, tea in the afternoon.



Favorite meal?

Any place my husband is cooking. (Although we're told she bakes a mean pie. She even won a cherry pie baking contest in grade school. "Pie making is becoming a lost art," she says)

Beatles or Rolling Stones?

Beatles. My first record was a Beatles' 45.



Dream concert at the Van Duzer Theatre?

Lyle Lovett.



Star Wars or Star Trek?

Both. I especially like the original Star Treks. They were wonderful morality stories about intergalactic peace and respecting civilizations different from your own.



Read her *EARTH* magazine column on the life lessons of Star Trek here: earthmagazine.org/article/geologic-column-lessons-final-frontier.



LEFT: Rossbacher was welcomed on her first day with a surprise performance outside her office by the Marching Lumberjacks. **TOP RIGHT:** Sharing thoughts during a radio interview with KHSU. **BOTTOM RIGHT:** Students Allison Bronson and Simeon Haynes point out what makes HSU so special on a campus tour.

Rossbacher wants to bring that same spirit of openness and inclusivity to HSU. At a recent sit-down on campus with local media, she outlined some of her upcoming priorities.

First on her list is updating HSU's Strategic Plan, which will guide the university for the next three to five years. She wants to include students, faculty, staff, and alumni in the planning process.

She wants to make sure HSU offers a good balance of academic programs and builds on its reputation as a leader in social and environmental responsibility. "I like how sustainability projects are student-driven at HSU," she says. "And I think it's just the tip of the iceberg."

Rossbacher thinks that the statewide budget situation will be challenging but that the strategic plan will provide a roadmap for the next few years. She also thinks the university needs to operate as efficiently as possible and seek more support from donors and alumni.

"Transparency, collegiality, respect, and integrity create trust, which makes everything possible," she says.


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WHEN HSU ANNOUNCED last fall that it would be searching for a new president, a few of Rossbacher's friends thought it was a match made in heaven.

"When I saw that job opening, I thought 'This sounds like her,'" says Cooper. "I mentioned it to her and it turns out she had already seen it."

Kyriakakis felt the same way. "It was one of those situations where we were all sad, but you couldn't help but be happy because it was absolutely the perfect fit. She loves California, she loves the outdoors, she's committed to sustainability and the community. She thrives in an environment where she can be engaged with students, faculty, and staff. You barely have to dig to see that HSU was made just for her."

At Rossbacher's farewell party in May, SPSU hosted a big party on campus with a live band, food, and margaritas mixed with the fruit drink Tang. They called it a Tangorita after her dog, Tango.

Rossbacher even dyed her hair green for the occasion. "She's not your typical president," says Kyriakakis. "She will amaze you guys and I'm incredibly jealous." 

Follow President Rossbacher on Twitter and Instagram @hsupres.

Returning to Humboldt

THE FIRST TIME Rossbacher and her husband came to Humboldt County in the 1980s, they were visiting an HSU faculty member in the History Department.

"I remember being struck by how different the coastline was from Southern California," says Rossbacher, who lived in the Los Angeles area for 20 years with her husband, Dallas. "It was so open."

Over the following years, they made several more trips to visit friends, take vacations, and go on geology field trips.

One of Rossbacher's most vivid memories from that time is a morning excursion to get fresh crab from Humboldt Bay. "We got up early to get the crab, drove to a hotel in Weaverville, sat on the floor, ate crab, and drank champagne," she says. "That was when we first started fantasizing about buying an old hotel in Weaverville."

The first thing Rossbacher did when she arrived in Humboldt County this July was take in the scenery. She drove to the scenic overlook north of the airport, where the Little River meets Clam Beach.

"I arrived in the afternoon, drove to the overlook, and admired the view," she says. "It was amazing."





Dressed in costumes from their favorite decade, students danced the night away in Lumberjack Arena

Founders Day in Photos

Photography by Evan Wisheropp ('13)

HSU capped off its 2013-14 Centennial celebration on Founders Day, April 25, with a full day of activities and events designed to ring in the new century.

Cupcakes on the Quad

Hundreds of HSU cupcakes added a sweet touch to the day.



Time Capsule

President Rollin Richmond kicked-off the day by sealing a time capsule buried on the steps of the Library. Among the items collected from students, faculty, and staff were: an issue of *The Lumberjack*, a Centennial football jersey, an alumni directory, a t-shirt from Associated Students, a Lucky Logger bobble head, a Humboldt State parking pass and a replica of a tree created with the Biology Core Facility's new 3-D printer and scanner. The time capsule will be opened in 2064.



Costume Contest Winner

Ideafest

Students and faculty from HSU's three Colleges presented their original research. Research presentations ranged from student-professor collaborations like Professor Justus Ortega and Kinesiology graduate student Andrew Felperin's "Effect of Age on the Cost of Supporting Body Weight During Walking," to projects involving multiple undergrads. Physics seniors Holly Leopardi, Michael Ross, Dave Smith, Crystal Cardenas and Conrad Harter-McDonald teamed up on their project, which tested how gravity behaves in extremely short distances.



Dance of the Century

Lumberjack Arena transformed into a dance hall for the Dance of the Century, with more than 1,600 attendees. The event featured music, a raffle with prizes like a bike and parking passes, hors d'oeuvres, a speakeasy-themed bar with karaoke, a photo booth, dancing, and screenings of HSU's Centennial Documentary directed by alum Benjamin Bettenhausen ('07, Physics).

HSU Honors Dinner

Each spring the campus community honors the contributions of outstanding alumni, students, faculty, and staff with a ceremony that includes speeches by the award recipients as well as a gourmet dinner.



*Outstanding Student,
Cherrish Courtney-Lynn Robinson,
talks with Arcata Mayor, Mark Wheelley.*



*Maral Attallah,
Excellence in Teaching
Award-Lecturer Faculty*

Students Push for Green Investments

HUMBOLDT STATE UNIVERSITY'S charitable foundation recently adopted an expansive new policy on socially and environmentally responsible investing, and through its "Humboldt Investment Pledge" is urging other foundations to do more to clean up their investments.

The HSU Advancement Foundation's Board unanimously adopted the policy in late April.

The Foundation already had a longstanding practice of making socially responsible, direct investments while closely monitoring the impact of indirect investments. For over a decade, for example, it has operated without any direct investments in fossil fuel-related industries, making it a leader in the more recent fossil fuel divestment movement.

But, intent on doing even better, the Board adopted the stricter policy following extensive meetings with students and others.

"We could have recommended the status quo, continuing our investment practices that are already more socially responsible than most other institutions. But that isn't enough for this Board, our students, or our community," said Duncan Robins, a Board member on the Finance Committee who helped lead the development of the new policy and pledge.

"We want to prove that it is possible, even for a relatively small endowment like ours, to do even better," Robins said. "We won't be perfect, but we will try to set a positive example for others to follow."

The policy was inspired by the university's Graduation Pledge of Social and Environmental Responsibility, which was created by students almost three decades ago and is now used at nearly 100 universities worldwide.

Robins said the student voices and energy on the issue were vital. A student group first approached the Board about divesting from fossil fuels last fall, and since that time has continued to meet with the Board's Finance Committee to work on details.

The Board was inspired by the students' understanding of the issues and commitment to making a difference.

As discussions progressed, a policy emerged that focused on much more than a small number of oil companies. It became a policy to discourage investment in all companies either directly or indirectly involved with extracting and using fossil fuel, and one aimed at challenging the Foundation to take more proactive steps going forward. The Foundation was concerned with the social impact of many more companies in its mutual fund portfolios—nearly 10 percent as opposed to less than 1 percent under a more typical measure of social responsibility.

"The policy provides a great framework to make investment decisions and it's a huge step forward from what I've seen of previous socially responsible investment policies," said Eric Recchia ('13, Economics), an HSU alumnus involved in the effort.

The policy lays out a 10-point pledge with broad goals that will guide future investment activity.

The Humboldt State University Advancement Foundation will:

1. Define socially or environmentally concerning sectors in a broad, bold way so as to include: **a)** Energy—extraction, distribution, refining and marketing (i.e. oil, natural gas, coal and related/supporting industries); **b)** Utilities—electricity generation (i.e., utilities utilizing carbon-based fuels); **c)** Aerospace/defense, alcohol, tobacco, gaming and casino industries. Revisit definition and revise as appropriate over time.
2. Continue to abstain from any direct investment in concerning sectors.
3. Monitor and report on the value of indirect investments in concerning sectors.
4. Make reasonable attempts to reduce the size of indirect investments in concerning sectors provided any divestments are consistent with the Foundation's fiduciary requirements.
5. Define socially or environmentally responsible (SER) organizations, projects or assets initially as ones which: **a)** Are environmentally friendly (i.e. reduce the levels of atmospheric CO₂) or; **b)** Improve the health and well-being of community members. Revisit definition and revise as appropriate over time.
6. Actively seek offsetting investment opportunities in SER organizations, projects or assets.
7. Invest directly in SER organizations, projects or assets provided that: **a)** Investments meet the Foundation's fiduciary requirements and policies **b)** Investments support the stated HSU mission, vision and values.
8. Monitor and report on the value of direct investments in SER assets and active investments in SER organizations or projects.
9. Monitor and report on the value of obvious indirect investments in SER organizations, projects or assets.
10. Create a SEROP Fund (with appropriate policies) and actively seek donations of funds and assets that could be used to support Humboldt's SEROP Pledge.

No Surprise Survey Finds Proud Alumni

HUMBOLDT STATE ALUMNI are happy with their education, likely to recommend HSU to another person, and are among the most loyal alumni in the Cal State system, according to the 2013 Alumni Attitudes Survey conducted by the Performance Enhancement Group, Ltd.

Humboldt State University recently participated in the survey along with 18 other CSU campuses. It polled alumni by email about their thoughts and feelings relating to their alma mater.

For HSU, 20,337 surveys were delivered and 1,746 responded. HSU has more than 60,000 alumni living in the United States.

SOME HIGHLIGHTS:

- Nearly all participants reported a positive opinion of HSU. In fact, 95 percent of participants said attending HSU was a "great" or "good" decision, and 94 percent said they had an "excellent" or "good" experience as a student. A similar majority also has an "excellent" or "good" current opinion of HSU.
- Holding the university in high regard no doubt explains why roughly 50 percent of respondents said they promote HSU "regularly" or "all the time" to others. Most participants rate their experience as alumni as "good" or "excellent."
- Most agree the value of their degree has the largest overall impact on their opinion.

"I'm not at all surprised by these findings," said Christy Khattab, director of Alumni and Engagement at HSU. "After traveling across the country meeting with alumni at HSU's Centennial Roadshows last year, I'm convinced ours are among the most loyal and dedicated alumni anywhere."

However, alumni did indicate there's room for improvement. Younger alumni indicated that HSU can do a better job preparing them for careers and helping them after they graduate.



Alumni gathered at 26 locations across the country to celebrate the HSU spirit.

Regarding communication, most alumni have read *Humboldt* magazine or an alumni newsletter. Few, however, have returned to campus for reunions.

Humboldt State has taken note of these findings. In the prior 2008 Alumni Attitudes Survey, participants indicated HSU was failing to take advantage of email. In 2012, participants positively rated the amount and quality of email HSU sends to alumni, especially regarding regional alumni events.

Alumni are clear they want more help identifying job opportunities for graduates and chances to mentor current students.

"It's great to know HSU alumni are happy with their time here. We'll study this feedback to enhance current programs and services with the goal of giving alumni even more reasons to support Humboldt State University," Khattab said.

95%

95 percent of participants said attending HSU was a "great" or "good" decision

94%

94 percent said they had an "excellent" or "good" experience as a student

50%

50 percent of respondents said they promote HSU "regularly" or "all the time" to others

HUMBOLDT STATE *Honors*

2013-14 | HONORING THE CAMPUS COMMUNITY

Each spring the university celebrates the contributions of outstanding alumni, students, faculty, and staff at the Humboldt State Honors Dinner.

Distinguished Alumni



JAMES A. FREEMAN ('80, MA, English) has used his gifts for writing and teaching during a 36-year career that includes publishing 18 books of fiction and poetry, along with authoring several textbooks. In 2006, he earned the *Philadelphia Inquirer* Editor's Choice Award for his book, *Ishi's Journey from the Center to the Edge of the World*. Freeman's time at HSU, he says, provided the ideal foundation for his career, offering a "practical bridge from academic and lifelong learning ... to a sustainable career of meaningful life's work." Freeman has also been an instructor at Bucks County Community College in Newton, Pa., since 1982.



BRUCE JACKSON ('84, Political Science) is Vice President of Trade Controls and Export Strategy at Virgin Galactic, the world's first space tourism company. His primary responsibility is working with federal agencies to protect the use of sensitive technology while still encouraging innovation. Known as an expert in international trade, Jackson previously served as Vice President of JP Morgan's Trade Management Consulting Group.



KAITLIN YARNALL ('05, Geography, Spanish) has worked as Deputy Creative Director for *National Geographic* magazine since 2011. Her role includes managing a staff of 25 editors, production designers and specialists, and researchers for one of the world's most prestigious publications. She is a frequently sought after speaker on topics of cartographic and infographics design. One of Yarnall's most prominent projects was serving as editorial lead and *National Geographic* project manager for the 2014 series, "The Future of Food."

Distinguished Faculty

Excellence in Teaching Award—Lecturer Faculty



MARAL ATTALLAH, Critical Race, Gender & Sexuality Studies

Passion, empathy, and academic rigor are attributes often used by students and peers to describe Attallah, who has taught 10 different courses over the last decade. Those characteristics have helped Attallah effectively expose the perspectives and voices of marginalized groups in society. With academic expertise and specialization in the areas of race and ethnic relations, genocide studies, and identity politics, Attallah incorporates recognition of genocide and genocide denial into her teaching.

Scholar of the Year



JEFFREY BLACK, Wildlife

Black joined the faculty in 1998 and recently made news for his study of river otter populations, in which he enlisted community input to help determine the health of the animals locally. He's employed the same inclusive strategy in studying eight other species, with a general focus on waterfowl.

Students praise Black's teaching skills in a variety of classes, ranging from Introduction to Wildlife Conservation and Administration to Behavioral Ecology.

Outstanding Professor



EUGENE NOVOTNEY, Music

Novotney incorporates his world travels into his instruction. Students consistently rate his classes among the most effective they've taken. He also directs two musical ensembles—the Calypso Band and HSU Percussion Ensemble. As a performer, Novotney has contributed to several professionally released recordings by world-class steel bands. He has also composed 18 original works published by three music outlets.

Distinguished Faculty continued ...

Excellence in Teaching Award—Tenure-line Faculty



JUSTUS ORTEGA, Kinesiology & Recreation Administration

Recognized nationally for his head trauma studies, Ortega utilizes his ability as a researcher to dispense knowledge in a passionate, yet practical, manner. Students consistently relate how he instilled confidence that helped develop their own research skills. Ortega also serves as director of HSU's Biomechanics Lab.

Outstanding Service Award



KENNETH FULGHAM, Forestry & Wildland Resources

For more than 30 years, Ken Fulgham has been a model of service to the university, providing thoughtful leadership to help address ever-changing challenges. Fulgham has held many prominent faculty leadership positions, including General Faculty President, Chair of the Academic Senate, and President of the California Faculty Association. He has also represented HSU with the Society of American Foresters and the National Association of University Forestry Research Programs.

Outstanding Student Awards



HOLLY F. LEOPARDI, Physics Major

Leopardi has worked with faculty in the Department of Physics & Astronomy as a grader and student research assistant, and was also an instructor in the Department of Mathematics' Academic Excellence Workshops. She has also made major contributions to a joint research project between HSU and the University of Washington that investigates the nature of gravitational physics and tests the Equivalence Principle of Einstein's Theory of General Relativity. She has published two peer-reviewed articles and has presented at the American Physical Society, the National Conference on Undergraduate Research, and the Alexander Von Humboldt Conference.

Outstanding Student Awards continued ...



**CHERRISH COURTNEY-LYNN ROBINSON
Ethnic Studies Major**

Robinson was a lead mentor in the Retention through Academic Mentoring Program in 2012, where she managed a caseload of 25 freshmen while simultaneously monitoring and supporting the work of 15 mentors. Robinson also served as a research intern with the MultiCultural Center, where she investigated best practices and models of African American academic centers. Robinson co-presented "(De)constructing HSU as a Post-racial Campus: A Discussion of White Privilege and Racism" at the 2013-14 Campus Dialogue on Race and has served as vice president of the Black Student Union.

Staff Recognition Awards

(pictured below, left to right)

STEVE TILLINGHAST, Geology

ANNIE BOLICK-FLOSS, Center for Service Learning & Academic Internships

KIM HALL, Veterans & Enrollment Transition Services

ANTHONY DESCH, Fisheries & Wildlife

JERRY SANER, Facilities Maintenance for Sustainability

WARD HEADSTROM, Institutional Research

MICHELLE CONOVER, Facilities Maintenance

LAURIE MAXWELL-CHAMBERLAIN, Library

(not pictured)

JEREMY DAVIS, Housing

LISA LEWIS, Telecommunications & Networking Services





Submitted

Gabe Guy Finding Fulfillment With ‘Frozen’

“I LIKE THE GATES OPEN,” says Anna, the princess hero in Walt Disney Animation Studios’ blockbuster hit, “Frozen.”

“We are never closing them again,” responds her sister Elsa, queen of Arendelle, as the story draws to a happy ending.

For Gabe Guy, (’98, Anthropology) the gates to his career as a sound mixer opened during his time as a Humboldt State student. Coming off “Frozen,” last year’s wildly successful animated feature and the most successful animated box office hit of all time, Guy is enjoying the wide world beyond.

“When I came to Humboldt, I wanted to be involved at KHSU,” Guy said. “While I was volunteering at KHSU, I also got a job setting up the equipment for concerts on campus. When I look at my career trajectory, I realize that combination of creative and technical greatly influenced what I’m doing now.”

Like Guy’s career beginnings in the KHSU studio, “Frozen’s” eventual success had a modest evolution. Inspired by the Hans Christian Andersen tale, *The Snow Queen*, it spent 10 years in the development stage before finally receiving wide distribution.

After quickly grabbing the No. 1 spot among holiday season releases, the movie’s

staying power generated more than \$1.2 billion worldwide in box office revenue. Critics agreed with audiences, and the crew’s and cast’s efforts were rewarded with Academy Awards for Best Animated Feature and Best Original Song “Let It Go.”

Guy’s efforts at Disney Animation were significant to the success of “Frozen” and other projects he’s involved with. One of his roles is working directly with voice actors, recording and re-recording their lines. So when Olaf the Snowman told Anna “Some people are worth melting for,” Guy was on the other side of the studio’s glass, assuring perfect sound quality.

“You could liken the entire process to making an album or record—rehearsing, rewriting, and fine-tuning, sometimes over the course of years,” Guy said. “It’s our job to make the funny stuff even funnier, and the dramatic even more dramatic, so it comes across in an hour-and-a-half film.

Guy majored in Anthropology and minored in History. “I enjoyed my Anthropology and History classes, and had thoughts of going into forensic anthropology,” he said. “That challenged me academically, and I came away with a whole slew of life lessons.”

After college, he worked at a record store, an experience that spurred his interest in the recording industry. He sent his resume to a broad range of potential employers, including producer George Lucas’ Skywalker Sound.

Although he initially received a rejection letter, he got an interview a year later for an entry-level machine room position.

“I didn’t know what that meant,” Guy said. “They said they wanted somebody smart, motivated, a quick learner who works well under pressure and can handle long hours. Even though I didn’t have technical skills, they thought I was trainable.”

Guy eventually moved up the ranks to a recordist and mixer. He worked for Todd-AO and Disney Digital Studio Services before being hired by Walt Disney Animation Studios.

“It’s very gratifying to see the connection ‘Frozen’ made with audiences, to see kids in my neighborhood running around singing the songs,” Guy said. “For me, it was ‘Star Wars’ that had that impact. It’s cool to think that years from now ‘Frozen’ will be their ‘Star Wars’.”

Class Notes

1960s

CARL S. CHAVEZ, 1966 Wildlife, published his second book, *A Year in Bodie, 1966-1967*, coauthored with his wife Margaret (Elmore) Chavez (also class of 1966). The book is about the start of Chavez’s 33-year career as a California state park ranger and administrator.

1970s

ANNE M. EGGLESTON, 1974 Speech Pathology and Audiology, worked in public education for more than 37 years: eight years as a speech therapist, 12 years as a resource specialist and 17 years as an elementary administrator. Eggleston misses the interactions with students, but not the paperwork and politics. In her retirement she is quilting, knitting, raising two golden retrievers, swimming, playing Bunco, and generally doing what the heart wants to do at the moment.

KATIE (MALLET) KRIER, 1974 Nursing, retired from a career in woman’s health nursing. Krier worked in labor and delivery, in Santa Barbara County obstetrics and family planning clinics, and in the public health sector doing disease control. Since retiring, Krier has enjoyed traveling, sailing, and gardening. She would love to hear from Humboldt friends.

BARBARA (REINHARDT) DEWITT, 1976 Nursing, was recently named manager for the post-anesthesia care unit (recovery rooms) at the Pacific Northwest Regional Trauma Center in the University of Washington’s Harborview Medical Center, in Seattle. She lives on nearby Bainbridge Island with her husband, Ken (’78, Business Administration), a local mortgage banker.

TOM LANGKAU, 1978 Social Work, retired from the Veterans Administration in March. He spent his entire career working in the vocational rehabilitation field in Northern California, from 1978 to 1995. He lives in Winter Park, Fla., and is married to Professor



Kristin Miller Romance Writer Pens Paranormal Prose

It was a dark and stormy night ...

OR AS KRISTIN MILLER prefers, a dark and stormy afternoon.

“I always write best when it’s pouring down rain,” says Miller (’02, Psychology), a best-selling romance novelist. “That’s because I’m happy, and I’m inspired. It goes back to how happy I was in Humboldt.”



Miller, who has published 15 novels since 2008, achieved a milestone when *Crazy in Love*, part of the *Lucky Seven Bad Boys* box set, made the *New York Times* and *USA Today* bestseller lists.

It was Miller’s husband, former HSU track and field standout Justin Miller (’02, Political Science), who first inspired her writing career. He suggested she find a good book or two to get through her kid’s nap time.

“I went to Barnes & Noble with a specific idea of what I wanted to read,” Miller says. “I was looking for a thriller in which a woman had a premonition of her killer.

“I searched for hours and couldn’t find a book like that because it hadn’t been written. I told my husband, and he said, ‘Why don’t you write it?’ I thought he was crazy.”

Miller drew upon her time at HSU as inspiration, using Trinidad as the locale for *Dark Tide Rising*. Its plot centers around a killer who chains his victims in a cave at the end of Moonstone Beach before the tide comes in. Her *Seattle Wolf Pack* and *Vampires of Crimson Bay* series focus on “bad boys” who are eventually tamed by women.

“They are lighter stories,” Miller says. “It’s like a normal businessman whose secretary happens to be a werewolf. She has normal world problems, like when she sheds it clogs her drains.”

As her work’s popularity has grown, so has her confidence.

“I started out thinking I’d try writing for a couple years, and if I didn’t like it I’d go back to teaching,” Miller says. “I absolutely love helping characters discover their own happy-ever-afters. Building a career from my writing and supporting my family is a dream I never thought possible.”

Dan Morain

Taking the Reins of Sacbee’s Editorial Pages

DAN MORAIN’S (’77, Journalism) thoughts grab more attention than your average blogger. In addition to writing a column for the *Sacramento Bee*, he oversees 17 opinion pages per week that include letters to the editor, commentary, and editorials.

“I’m not aware of any other newspaper in California that devotes that much space to opinion journalism,” says Morain, who was recently named the *Bee*’s editorial page editor.

Morain’s appointment gives Humboldt State a clean sweep of the top two newspaper editorial page positions in Northern California. He joins John Diaz,



opinion page editor at the *San Francisco Chronicle* since 1996, also a 2008 Humboldt State Distinguished Alumni award recipient.

The list of Humboldt State professors who prepared Diaz and Morain for their careers reads like a

“Who’s Who” of the school’s Journalism instructors, including Mac McClary, Mark Larson, Sherilyn Bennion and Pete Wilson. Like many others, Morain found a mentor in the late Howard Seemann, a member of the Journalism faculty from 1969-98 and advisor to *The Lumberjack* student newspaper for 28 years.

“Howard gave me an F on my first Journalism final because I misspelled a name,” Morain says. “But he encouraged me to stick with it, and I listened. He remains one of the most interesting men I ever met.”

Larson remembers Morain as a particularly bright star during an era that featured a constellation of outstanding future journalists.

“While still early in my teaching career here at HSU, I was very impressed by Dan Morain as a student and a serious-minded young journalist who loved to write—and who was not afraid to ask questions of anyone in authority,” Larson said.

Looking back at his college experience, Morain marvels about the success of so many other students who honed their skills writing and reporting for *The Lumberjack*. Morain credits HSU’s journalism program with his and their success.

“It’s a great department,” Morain said. “That’s obvious when you look at how many really good journalists it has graduated.”

Lani M. Harris (’77) of the University of Central Florida. They fondly remember meeting at HSU. Their family includes two children and three grandchildren. Professor Harris grew up in Eureka and remains in touch with her family in Humboldt County.

MICHAEL SANDECKI, 1979 Geology, is currently a water quality analyst employed with the California Coastal Commission.

1980s

MARIE (FERGUSON) SMITH, 1980 Wildlife, has been teaching high school science for the last 25 years after working for the U.S. Forest Service as a research technician. Smith is married with three sons, two engineers (SDSU and CSU) and one zoologist (HSU). She’s currently living on a mountain outside of Glide, Ore., and still teaching science (Umpqua Valley Christian School), but dreaming of retirement.

BRIAN ALAN REED, 1984 Theatre Arts, is a Professor of Theatre and Resident Designer at Whittier College, where he received the Nerhood Award for Teaching Excellence in 2013. Reed has also designed scenery for the Gascon Theatre, Zephyr Theatre, Pacific Resident Theatre, Odyssey Theatre, California Theatre Center, Pomona College Theatre, and 10 productions at the Kingsmen Shakespeare Festival. Reed serves on the Western Region Board of United Scenic Artists, IATSE Local USA-829. He also has served on the Board of the United States Institute for Theatre Technology and chairs USITT’s California Section. He and his wife, Suzanne, will celebrate their 30th anniversary in 2015.

ROMI HITCHCOCK TINSETH, 1988 Communication, after 26 years gaining teaching, outreach, presentation, and community relations experience, is thrilled to be living out the dream of many HSU alumni: returning as full-time faculty to the academic department that built her academic foundation. Tinseth says she owes much of her success to HSU and is thankful for the opportunity to give the same to future students.

1990s

WILLIAM FORBES, 1990 Geography, is an associate professor of Geography at another Lumberjack school, Stephen F. Austin State University, located in the Pineywoods of East Texas. At the University of North Texas, he did his dissertation on revisiting Mexico’s Rio Gavilan, where Aldo Leopold noted perfect land health in the 1930s. Forbes currently directs SFA’s Center for a Livable World, which studies the sustainability and livability of small cities.

TONJA (OLSON) TALLENT, 1998 Biological Sciences, worked at a winery as a microbiologist, then for a bio-tech company doing the same. She recently left Corporate America and started a business with her husband and now happily runs a tea bar in Fair Oaks, Calif.

2000s

JENNA HIGGINS, 2000 Journalism & Mass Communication, is the Director of Development for Bread of Life Mission in Seattle. The mother of two children, Higgins is happily married and living in Issaquah, Wash. She loves to write in her spare time and has published two event planning books.

RION ALLBAUGH, 2001 Forestry, met his wife, Anne Marie Nielsen (’01, Child Development), in the Siemens Hall computer lab in 1999 and they have been together ever since. Allbaugh is a fire captain for Cal Fire, and Anne Marie is a second grade teacher. They live in the Sierra Nevada Foothills with their son and dog. They look back upon their Humboldt State experience with great nostalgia and, if given the opportunity, would do it all over again in a heartbeat.

KENNETH DAVIS, 2001 Film Production, founded a postproduction firm in the Baltimore/Washington area in 2002 that provides services to videographers, corporate/government clients, independent filmmakers and media enthusiasts. Davis remains active with SCUBA and adores his new niece, Krista.



Jacob Pressey

From Dirt to Draft, Brewing a Sustainable Success

ON MONDAYS AND TUESDAYS, Jacob Pressey (’10, Environmental Science) tends his crops in Alton and McKinleyville, Calif. On the other five days, he transforms his labor into liquid refreshment, and serves it to a growing clientele.

“I like to call it beer farming,” says Pressey, who started Regeneration Brewery & Farm.

Pressey is applying his education—which included an emphasis on soils and agriculture—in a process that takes his beer from seed to sip. He grows his own hops and barley and malts them at his brew house before transforming the mixture into a variety of Belgium-style ales.

The team right now is Pressey, and his dog, Dolce, a Bernese mountain dog that has recently begun helping out by pulling carts. As a one-man, one-dog operation, Pressey scrambles between farm and brewery, where he’s also a host and server.

Common brews include “Blasphemy Ale,” which blends beer in a process usually shunned by microbreweries, and “Belgium Biscuit Brew,” a lighter, wheat-based ale. Patrons can also sample “Alton Tea,” “Whiskey Chip Brown,” and “I Can’t Put My Finger On It.”

Modeled after community supported agriculture (CSA) programs, Pressey has established what he calls a CSB—substituting the “agriculture” for “beer.” Customers purchase a share, which takes the form of a half-gallon growler filled with the beer of the week.

On his three-acre farm in Alton and a recently leased plot in McKinleyville, Pressey uses old-school methods to manage his crops. He uses an early 1900s era scythe to reap the grain, and then separates it from the stalk with a pedal-powered thresher.

Eventually, he’d like to expand his business.

“The end goal would be establishing a larger brewery and farm in one location,” Pressey says. “We could give tours and sell other local products, and have a real beer garden.

“What I have now is pretty small scale, but I’ve been thinking about how it could grow. As the demand grows, it would be great to expand, but at the same time keep the process sustainable,” he says.



Submitted

Julie Brusaw

Gaining Traction with Solar Roadways

JULIE BRUSAW ('91, Psychology) and her husband, Scott, are paving the way to a more sustainable future. And many, including the national media, are taking notice.

The couple founded Solar Roadways, an Idaho company that recently raised \$2.2 million in a crowd-funding campaign for a solar-paneled road project that could revolutionize America's transportation grid, reduce dependence on foreign oil, and alleviate global warming.

Their goal is to replace the country's entire asphalt road system with super-strong textured glass panels that would charge electric vehicles with energy from the sun and reduce greenhouse gas emissions.

The couple recently finished a solar parking lot prototype with funding from the Federal Highway Administration. And in recent months, their idea has gained traction. After receiving several celebrity endorsements, their YouTube video went viral (17.5 million views at most recent count), leading to a barrage of media attention and a flurry of monetary donations.

The Brusaws plan to use the recent funds to hire an engineering team and test their technology. They're also hoping the financial boost will help them perfect their concept, which has been years in the making.

Julie has always been interested in sustainability. "I've always cared deeply for the environment and that is one of the things that brought me to Humboldt State," she says. Scott, an electrical engineer by trade, became interested in electric roads when he was kid. "I thought if I made real roads electric, then us kids could drive," he recently told CNN. "That thought stuck with me my entire life."

It wasn't until a few years ago that Julie suggested they explore the idea of replacing traditional roads with a solar alternative. They spent years developing a design which incorporates features such as LED markers, a heating function and a way to treat storm water.

"It's a wonderful thing that my husband and I have founded a company that we believe will help halt climate change, make our planet cleaner, greener, power electric vehicles with clean sunshine, and create more safety for both people and animals," she says.

ROBERT DAVID SHORT, 2002 Geography, spent time traveling the U.S. and had the opportunity to take a boat from Humboldt Bay to Wrangell, Alaska, after graduation. It was a 38-day trip and the last 500 miles were traveled solo. He worked with the Army Corps of Engineers and the U.S. Forest Service before finally landing a job with the National Oceanic and Atmospheric Administration's National Ocean Service as a physical scientist helping update and acquire charts used for ocean navigation.

REBECCA KELLAWAN, 2005 Anthropology, went on to graduate studies in the U.K., earning a Master of Arts with Distinction in Historical Archaeology from the University of Bristol. Kellawan is currently employed as a senior archaeologist with Far Western Anthropological Research Group located in Davis, Calif. Kellawan specializes in the historical archaeology of Northern California. She has also previously conducted research on African American troops stationed in Britain during World War II and the Indian diaspora in the West Indies.

LAUREN M. CONNOLLY, Ph.D., 2006 and 2010, English, completed her Ph.D. at the University of Texas at El Paso in rhetoric and composition after earning her bachelor's and master's degrees at Humboldt State University. She is an assistant professor at Lewis-Clark State College in Lewiston, Idaho.

BRYNN E. DEMEI, 2006 Politics, now lives in her home country, the beautiful island of the Republic of Palau, where she works as a Commercial Loan Analyst for National Development Bank of Palau (NDBP). Demei will pursue her master's degree in Public Administration next year, through the University of San Diego's graduate cohort program, while she lives and works in Palau.

JULIANNA MARIE BOGGS, 2009 Journalism, has picked up a successful career as a freelancer writing about arts and culture for the *Sacramento News & Review*, food and agro-politics for *Edible Sacramento* magazine and *Sacramento Foodways*, and is now researching material for a pop-science book about the history and impact of nuclear power in the world today.

Doug George & Marilyn Latta

Working to Stem the Tide of Rising Seas

DOUG GEORGE ('99, Oceanography) and Marilyn Latta ('95, Marine Biology) have combined their expertise to address the effects of rising sea levels on marine life and shoreline erosion.

Latta, a project manager for the State Coastal Conservancy, and George, an oceanographer with Applied Marine Sciences, Inc., are using natural materials to create a barrier that will protect the land and offer habitat for ocean-dwelling species in San Francisco Bay.

Their approach—called "Living Shorelines"—has already been successful along the Atlantic and Gulf coasts. Until recently, it hadn't been tested on Pacific shores.

"There hasn't been a lot of the combined biological/physical approach here, but we have erosion issues in San Francisco Bay that will only get worse with climate change," says Latta. "It's pushed us to think about how we can do habitat restoration while also taking a physical approach against wave action."



Submitted

George says it's nice to work with a fellow HSU alum. "We rely on understanding each other's background of trying to do good things for the planet, given realities of budget constraints and other things that get in the way of idealism."

Latta's role in the Living Shorelines demonstration project, located on a one-acre plot near San Rafael, has focused on constructing a reef of oysters and eelgrass to encourage eelgrass growth and shellfish inhabitation.

George and his colleagues are looking at how the same barrier will reduce wave energy, relocate sediment and stabilize shorelines from erosion.

So far, the results have been promising. In addition to seeing an increase in oyster numbers, other species like Dungeness crab, salmon, shrimp and snails, have started using the reef. Sediment has also built up inside the reefs. "In some places we've observed a build-up of 16-20 centimeters of sticky, mushy mud," says George.

Forever HUMBOLDT

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As the new school year gets underway at Humboldt State, we're proudly introducing the **Humboldt State Association**.

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Andy White

Advocating for Land Ownership

FROM HIS OFFICE in the nation’s capital, Andy White (’83, Forestry) has an expansive view of the world. He sees women’s rights being trampled on in places like Liberia and China, and deforestation in Indonesia. He watches governments



grabbing land that has long been home to impoverished people in Africa.

In reality, White’s view of the planet is awareness. Staying on top of global land issues is essential to the Rights & Resources Initiative, a coalition he helped organize in 2006. Its mission is to return ownership to indigenous peoples and local communities, and help them change the laws and regulations that are keeping them poor.

Supporting women and their organizations is particularly important, White says, because their land rights have traditionally been ignored. In many cases, women produce agricultural products that line the pockets of their governments but are denied the ability to own the land where they live and work.

“Respecting women’s rights not only brings some measure of justice to them, but is critically important for all of society,” White says. “The more we can ensure equal rights for women, the better chance of having an impact on climate change.”

White believes the forestry education he received at HSU laid the groundwork for his career in social and environmental advocacy.

“HSU had tremendous professors, who were very aware of worldwide forestry issues, and is in a wonderful setting. It was the perfect place to be,” he recalls.

In her role educating another generation of Humboldt State students, Forestry Professor Erin Kelly views White’s work as an example of merging educational boundaries while addressing land management issues.

“I think the best approach to teaching land management is in nurturing cross-disciplinary or multi-disciplinary projects and programs for students,” Kelly said. “Andy’s work combines politics, forestry, sociology, economics, and probably other fields.”

White enjoys the opportunity to visit the HSU campus occasionally, and has a brother, Phil, who is an oceanographer living in Arcata. He’s noticed the physical changes, but the same dynamic that existed during his student life remains.

“It’s a very positive environment for learning,” White said. “You come out with a very practical orientation and feeling that problems can be solved.”

Kelly, who is in her third year at HSU, feels current forestry students can and should follow White’s lead.

“His work has helped policy makers understand the roles of land tenure, or control over land, in implementing forestry policies, particularly for marginalized groups and women,” Kelly said. “His career demonstrates that our Forestry and Wildland Resources program prepares students for a really broad array of jobs.”

Submit a Class Note

humboldt.edu/classnotes
or email: alumni@humboldt.edu

TYLER CLINE, 2009 History, pursued his Master of Arts in Public History from Sacramento State University, graduating in 2011. While pursuing his M.A., Cline worked as a processing archivist at the California State Archives. He then worked as an archivist in Anchorage, Alaska, with the U.S. National Parks Service. In 2013, Cline accepted a tenure-track position with the University of Wyoming American Heritage Center as the digital programs archivist, where he is responsible for preservation born-digital collections, and oversees a department of six engaged in mass-digitization of collection material for access on the web.

NICK ENTSMINGER, 2009 History, graduated with a Master of Medical Science from Saint Francis University in Loretto, Pa., and a Certificate in Clinical Proficiency from Stanford University. Entsminger returned to Humboldt to begin a career in rural primary care and emergency medicine. Despite these accomplishments, he still misses his days at Humboldt State. Entsminger writes, “The education and experiences that I gained were paramount in influencing my educational pursuits. Additionally, my love of history has never ceased, and I hope that Humboldt someday offers a master’s degree in History, so that I may enroll once again. I would like to thank Drs. Marschke, Pasztor, and Mays.”

2010s

JESSICA ANN SELLERS, 2013 Wildlife, spent two summers working on a Wyoming toad recovery project doing captive breeding, research, surveys, and releases. Sellers also spent some time in Key Largo, Fla., interning for REEF doing fish surveys and lionfish research and removals.

KRISTIN PEAHEY, 2014 Psychology, recently began a career as a Behavioral Therapist at California Psychcare.

Calendar

MARK YOUR

Homecoming & Family Weekend

October 3

Homecoming Parade

4:15 p.m. Start Time

Arcata Plaza

...

October 4

3 p.m.

Tailgate Party

Parking Lot G 11
(Across from SBS Building)

...

6 p.m.

HSU Football

vs.

South Dakota School of Mines and Technology

Redwood Bowl

...

humboldt.edu/homecoming



Golden Grad Brunch

Honoring the Class of 1964

October 4 • 11 a.m.

Windows Café



Basketball Season Highlights

October 25 • 1 p.m.

Alumni Game

...

November 22

HSU vs. CSU San Bernardino

Women: 5:30 p.m.
Men 7:30

...

February 14

HSU vs. CSU Chico

Women: 5:30 p.m.
Men 7:30

...

Lumberjack Arena

hsujacks.com



Humboldt Symphony

November 1 • 8 p.m.

Fulkerson Recital Hall



Branford Marsalis: Well-Tempered

October 8 • 8 p.m.

...

Ziggy Marley

November 8 • 8 p.m.

...

Van Duzer Theatre

humboldt.edu/centerarts



Faculty Artist Series

Cindy Moyer

Lecture-Recital on the Bach Chaconne, Violin

November 9 • 8 p.m.

Fulkerson Recital Hall

Faculty Awards Lecture Series

Wildlife Professor Jeffrey Black

Scholar of the Year

November 10 • 5 p.m.

Van Duzer Theatre

humboldt.edu/events



things

Seen During the First Week of School

From Outdoor Movie Night to picking up supplies in the bookstore and tearful family good-byes, the first week of fall semester brought a bustle of activity.



meet humboldt

Monica Correale ('15, Psychology)

MONICA CORREALE ('15) is currently a graduate student in developmental psychopathology at HSU. Struggling with a toxic and abusive childhood, she overcame adversity to become the first in her family to graduate from college (HSU) in 2013. For her academic and personal accomplishments, she was recently named a Trustee Emeritus Ali C. Razi Scholar by the California State University system, the highest student award given by the CSU.

A SUPPORT SYSTEM "Education gave me an avenue for healing because it connected me to a larger support system of teachers who encouraged me and believed in my potential. My goal is to become the best person possible so I can pursue a career that allows me to give back to others."

PSYCHOLOGY AND LOVE "For my master's thesis, I'm examining adult romantic relationships and their potential to either amplify or diminish the mental health effects of early childhood abuse experiences. My project will be one of a few to use a sample of both heterosexual and same-sex couples."

TRYING OUT TEACHING "Last year, I volunteered as a teaching assistant for two classes, Family Relations and Family Violence. I lectured on the neurobiology of love relationships and the intersections between multiple forms of family violence. It's affirmed my passion for teaching, and I really enjoy trying to encourage and inspire students."

CALL ME 'PROFESSOR' "Ultimately, I hope to be admitted into a Ph.D. program in Applied Developmental Psychology or Human Development and Family Studies and eventually become a university professor. I'd like to work at a university that serves students from traditionally underrepresented populations and conduct research that helps to solve salient social problems."

GIVING BACK "Being a scholar of family violence carries with it a social responsibility, and I hope to use my education to advocate for increased access to mental health services and community support, especially for struggling and low-income families and children."



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