Students publish work in science journal linked to climate change, research finds

An increase in non-native Pacific oyster density in Newport Bay correlates with warmer summer seawater temperatures, marine ecology students taught by professor Danielle Zacherl at Cal State Fullerton have discovered. Their research, just published in the scientific journal PLoS ONE, describes a phenomenon that is also taking place elsewhere around the world.

The paper was published in May and was co-authored by 13 senior and graduate students with the guidance of Zachet and her long-time professor William Flowers.

Zacherl has studied population demographics of the non-native Magallana gigas oyster, commonly known as the Pacific oyster, as well as the native Olympia oyster, in local estuaries for years. "Pretty early in my career, I understood that we had this Pacific oyster present in our estuaries," she said. "I wanted to start up a research model at the Cal State that could support a lot of undergraduate involvement in research. I started doing some basic monitoring of populations on both oyster species. And so I have these really nice, long-term datasets that extend pretty far back in time."

Students in her marine ecology class used these datasets that Zachet had created as the starting point for their research. "Every time that I teach that class, we take some of my long-term datasets and we expand them by going out and doing some more monitoring." Following this work, students typically make a presentation of their findings.

"I had this particularly motivated cohort of students, who are many of the student co-authors on this particular paper," she said. "They just went above and beyond."

The students observed a massive increase in the density of the Pacific oyster in one specific location in Newport Bay. (This oyster is the kind that is widely grown with aquaculture and eaten by seafood lovers, but Zacherl and her students only studied oysters grown in the wild which are typically not harvested for food.)

"The students went and got publicly available data and correlated it with this increase in summer seawater temperatures," Zachet explained. "They were reading in the scientific literature that elsewhere in the world, the Pacific oyster increased at a variety of locations and especially in Europe during periods when there were late or warm summers."

This connection got their attention. "They effectively saw a parallel pattern happening here in Southern California," Zachet said. "It was based on those pre-sentations that I decided, yeah, it's time to move forward."
BY LEO POSAL contributing writer

By guiding students to critically evaluate AI-driven design solutions and consider ethical implications, we prepare them to navigate the complexities of the evolving digital landscape with confidence,” Wang said. “This project demonstrates our efforts to harness AI’s potential in creating effective design solutions.

Al is a tool to achieve design goals and meet users’ specific needs, Wang said. For children, AI can be used to create context suitable for children of all cognitive abilities and be used to design game elements to ensure learning through play, the presenter said.

Al can be used to generate background music based on the user’s music taste and preferences, voice-controlled guides for brevelling exercises, and yoga practices to help users relax, Wang said.

Other CSUF presenters included Shelle Wynants, professor of Child and Adolescent Studies; Nicole Seymour, English professor; Thomas Mos, assistant economics professor; Leslie Bruce, director of the Writing Center; and, Leslie Bruce, director and assistant director, respectively, of CSUF’s Office of Student Standards for Academic Integrity.

The presentation by Budar-Turner and Yong juxtaposed technology accessed by students in 2020 that could potentially be used for cheating along with resource availability to faculty to determine whether cheating had occurred, with the advanced AI technology available to students in 2024 and the challenges it presents for faculty to prevent academic dishonesty.

Budar-Turner and Yong said that student use of artificial intelligence to create or review work submitted for evaluation can be a slippery slope for scholarly communities to navigate.

“Can students use AI in preparing their assignments? Yes, they can, and they do,” the presenters said. “May they see AI in preparing their assignments?” That depends on you, the instructor, and the parameters you set in your courses.”

Budar-Turner and Yong encouraged educators in attendance to respond to this question and consider ethical implications. They shared a presentation titled “AI Integration and Academic Integrity” which discussed the ways students can incorporate AI technology into their design process.

“By writing a paper about the ocean and then submit it as their own work,” Wang said, “I would predict that they’re going to continue to increase,” said Zachler of the Pacific oyster. “They’re such a large oyster, and they are definitely a reef-forming oyster. And so, it will be impossible for them not to have an impact on Southern California estuaries. And so, it will be impossible for them not to interact with other species that other species can live in.”

Zachler’s research, however, has taught him that variability in environmental conditions, such as water temperature, can affect the oyster’s ability to maintain a balance between growth and reproduction. This variability can also influence the rate at which oysters mature and reach sexual maturity.

Zachler and his team have identified several factors that affect oyster growth and reproduction, including water temperature, salinity, and nutrient availability. They have also found that oysters in areas with higher nutrient concentrations tend to grow faster and reach sexual maturity more quickly. However, this can also lead to increased competition for resources and a decrease in the oysters’ overall fitness.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.

Zachler’s research has also shown that oysters are sensitive to changes in their environment. For example, increased water temperature caused by climate change can lead to decreased growth rates and decreased reproductive success. This can have negative consequences for the health of oyster populations and the ecosystem in which they live.
Landmark Hall: A new era dawns with groundbreaking

By Jennifer DuBois

After serving an interim dean since January, Cal State Fullerton professor and author Jessica Y. Stern has been named dean of the university’s College of Humanities and Social Sciences as of June 1. A member of the Titan community since 2007, Stern has served as associate dean for student relations and as chair of the Department of History.

Stern credits her journey to becoming a historian for much of her vision in this new role. A self-described former law student and a mother with a microbiologist, she approached her undergraduate studies at Reed College, a small, liberal arts school in Portland, Oregon, as an exploratory experience. After taking an early American history general education course, she was drawn to the idea of pursuing history as a career.

“As I got older in my profession, I realized that I actually did like working with instructors and lenses. ‘How do you do data analysis?’ said Stern. ‘Who’s a critical thinker and who knows how to do data analysis?’”

One of the key programs Stern has helped develop is the general education sphere is CSUF’s Explore Core, courses that challenge students to not look at general education classes as strictly “fillers,” but as opportunities to explore various topics through different instructors and lenses.

“Instead of it being ancillary and something you just back out of, you take general education seriously, you are learning how to approach problems from multidisciplinary,” Stern said.

Another of Stern’s contributions to the university which at the associate dean role is Passage to the Future, a program for humanities and social science students to more seamlessly connect with employment opportunities. This effort flows into one of her main goals as dean to dispel the myth that humanities and social science degrees don’t have career paths and that both students and community members who see those career paths.

“When you look at the data of what business schools say they need, they say they want somebody who communicates well, who’s a critical thinker and who knows how to do data analysis,” said Stern. “Their students in the humanities and social sciences are broadly trained in those skills.”

Another area of focus for Stern, and where she sees some real momentum building, is making sure that the College of Humanities and Social Sciences is more connected to the community.

“Even though the across the campus of the next generation of transformational community in the development of the next generation of transformational community leaders, Stern said. “I want to be a catalyst for achieving excellence in the humanities.”

“I think of one thing that makes Cal State Fullerton and the College of Humanities so remarkable is that our students recognize that our ability to nurture, inspire and help students tell stories, our ability to bring diverse voices into the academic fields push into new directions and breaking down barriers into those fields and pushing those forward.”

FACILITIES

Landmark Hall: A new era dawns with groundbreaking

An exciting new chapter in the life of the Cal State Fullerton College of Business and Economics dawned on June 5, as more than 100 alumni, friends, donors, faculty and staff gathered for the groundbreaking of a new building, Landmark Hall, which will become the leadership hub of Orange County and the West Coast.

The more than 20,000-square-foot building, which will be an asset to the college and university has become over the years from now, if people want to study history, what we’re trying to do, said Stern. “By the time they are looking at the data of what business schools say they need, they say they want somebody who communicates well, who’s a critical thinker and who knows how to do data analysis,” said Stern. “Their students in the humanities and social sciences are broadly trained in those skills.”

Another area of focus for Stern, and where she sees some real momentum building, is making sure that the College of Humanities and Social Sciences is more connected to the community.

“Even though the across the campus of the next generation of transformational community leaders, Stern said. “I want to be a catalyst for achieving excellence in the humanities.”

“I think of one thing that makes Cal State Fullerton and the College of Humanities so remarkable is that our students recognize that our ability to nurture, inspire and help students tell stories, our ability to bring diverse voices into the academic fields push into new directions and breaking down barriers into those fields and pushing those forward.”

FACILITIES

Landmark Hall: A new era dawns with groundbreaking

An exciting new chapter in the life of the Cal State Fullerton College of Business and Economics dawned on June 5, as more than 100 alumni, friends, donors, faculty and staff gathered for the groundbreaking of a new building, Landmark Hall, which will become the leadership hub of Orange County and the West Coast.

The more than 20,000-square-foot building, which will be an asset to the college and university has become over the years from now, if people want to study history, what we’re trying to do, said Stern. “By the time they are looking at the data of what business schools say they need, they say they want somebody who communicates well, who’s a critical thinker and who knows how to do data analysis,” said Stern. “Their students in the humanities and social sciences are broadly trained in those skills.”

Another area of focus for Stern, and where she sees some real momentum building, is making sure that the College of Humanities and Social Sciences is more connected to the community.

“Even though the across the campus of the next generation of transformational community leaders, Stern said. “I want to be a catalyst for achieving excellence in the humanities.”

“I think of one thing that makes Cal State Fullerton and the College of Humanities so remarkable is that our students recognize that our ability to nurture, inspire and help students tell stories, our ability to bring diverse voices into the academic fields push into new directions and breaking down barriers into those fields and pushing those forward.”

FACILITIES

Landmark Hall: A new era dawns with groundbreaking

An exciting new chapter in the life of the Cal State Fullerton College of Business and Economics dawned on June 5, as more than 100 alumni, friends, donors, faculty and staff gathered for the groundbreaking of a new building, Landmark Hall, which will become the leadership hub of Orange County and the West Coast.

The more than 20,000-square-foot building, which will be an asset to the college and university has become over the years from now, if people want to study history, what we’re trying to do, said Stern. “By the time they are looking at the data of what business schools say they need, they say they want somebody who communicates well, who’s a critical thinker and who knows how to do data analysis,” said Stern. “Their students in the humanities and social sciences are broadly trained in those skills.”

Another area of focus for Stern, and where she sees some real momentum building, is making sure that the College of Humanities and Social Sciences is more connected to the community.

“Even though the across the campus of the next generation of transformational community leaders, Stern said. “I want to be a catalyst for achieving excellence in the humanities.”

“I think of one thing that makes Cal State Fullerton and the College of Humanities so remarkable is that our students recognize that our ability to nurture, inspire and help students tell stories, our ability to bring diverse voices into the academic fields push into new directions and breaking down barriers into those fields and pushing those forward.”

FACILITIES

Landmark Hall: A new era dawns with groundbreaking

An exciting new chapter in the life of the Cal State Fullerton College of Business and Economics dawned on June 5, as more than 100 alumni, friends, donors, faculty and staff gathered for the groundbreaking of a new building, Landmark Hall, which will become the leadership hub of Orange County and the West Coast.

The more than 20,000-square-foot building, which will be an asset to the college and university has become over the years from now, if people want to study history, what we’re trying to do, said Stern. “By the time they are looking at the data of what business schools say they need, they say they want somebody who communicates well, who’s a critical thinker and who knows how to do data analysis,” said Stern. “Their students in the humanities and social sciences are broadly trained in those skills.”

Another area of focus for Stern, and where she sees some real momentum building, is making sure that the College of Humanities and Social Sciences is more connected to the community.

“Even though the across the campus of the next generation of transformational community leaders, Stern said. “I want to be a catalyst for achieving excellence in the humanities.”

“I think of one thing that makes Cal State Fullerton and the College of Humanities so remarkable is that our students recognize that our ability to nurture, inspire and help students tell stories, our ability to bring diverse voices into the academic fields push into new directions and breaking down barriers into those fields and pushing those forward.”

FACILITIES

Landmark Hall: A new era dawns with groundbreaking

An exciting new chapter in the life of the Cal State Fullerton College of Business and Economics dawned on June 5, as more than 100 alumni, friends, donors, faculty and staff gathered for the groundbreaking of a new building, Landmark Hall, which will become the leadership hub of Orange County and the West Coast.

The more than 20,000-square-foot building, which will be an asset to the college and university has become over the years from now, if people want to study history, what we’re trying to do, said Stern. “By the time they are looking at the data of what business schools say they need, they say they want somebody who communicates well, who’s a critical thinker and who knows how to do data analysis,” said Stern. “Their students in the humanities and social sciences are broadly trained in those skills.”

Another area of focus for Stern, and where she sees some real momentum building, is making sure that the College of Humanities and Social Sciences is more connected to the community.

“Even though the across the campus of the next generation of transformational community leaders, Stern said. “I want to be a catalyst for achieving excellence in the humanities.”

“I think of one thing that makes Cal State Fullerton and the College of Humanities so remarkable is that our students recognize that our ability to nurture, inspire and help students tell stories, our ability to bring diverse voices into the academic fields push into new directions and breaking down barriers into those fields and pushing those forward.”

FACILITIES
**Titan alum lands a dream role at Warner Records**

Suspended by beams and lights, the soaring speakers and energetic dancers, 17 Landig dreamed of becoming a rock star on the grand stage. TJ Landig, a Titan alum, now has his dream role at Warner Records. Landig, a senior vice president at Warner Records, oversees the marketing budget, creative marketing, and oversight of the marketing budget, creative marketing, and oversight of the marketing budget, creative marketing, and oversight of the marketing budget, creative marketing, and oversight of the marketing budget, creative marketing. Landig described his experience at Warner Records, "It's been an amazing journey. I've been able to work with some of the greatest artists in the music industry."

Landig's career at Warner Records started as a radio promotion assistant before transitioning to a career in marketing. He now leads a team of marketing professionals, overseeing the marketing budget, creative marketing, and oversight of the marketing budget, creative marketing, and oversight of the marketing budget, creative marketing. Landig said he enjoys the fast-paced nature of the music industry, "It's always changing, and we have the opportunity to work with some of the greatest musicians in the world."

Landig's experience at Warner Records has been transformative. He has been able to work with some of the greatest artists in the music industry, including artists such as John Chen, Warner Chappell vice president, left, and TJ Landig, Warner Records senior vice president. Landig said his role at Warner Records has been "an amazing opportunity to work with some of the greatest musicians in the world and influence the direction of the music industry."
**Dean**

**Students' national forest volcanic magma systems study recognized**

Samantha Dunn conducted geology fieldwork at Jackass Lakes pluton in the Sierra National Forest. Dunn conducted a petrologic analysis of the volcanic and plutonic rocks. Dunn's thesis project focuses on magmatic systems in the Sierra Nevada. Dunn is working on completing lab work and writing her thesis, which she plans to finish in the fall. She also intends to submit her research for publication in a peer-reviewed, scientific geological journal.

**Valbore Barbosa-Leiker** is the newly appointed dean of the College of Health and Human Development at Cal State Fullerton. Barbosa-Leiker became an associate professor of geological sciences in 2020. Barbosa-Leiker leads an interdisciplinary primary research team to assess mothers, infants, and health care providers in order to better care for women with opioid use disorders, and for women who use cannabis during pregnancy.

In 2023, she was awarded a $2,500 grant from the Geological Society of America. In 2020, Barbosa-Leiker became a recipient of the 2024 Brunton Award from the Association for Women Geoscientists. The worldwide organization introduces female geologists and young women to geoscience careers. She received a Briceanum grant, which was awarded for the use of geologic field use in the field. It's exciting to receive such a distinguished award. It makes me think, I have a lot of hard work and effort into my research, and I am worthy of this recognition. Her research focuses on volcanic and plutonic rocks, which are studied through different rock types and structures. Barbosa-Leiker has a bright future that will include promoting field mapping to future generations.

Dunn has received recognition for her research, which will provide her with opportunities to engage in interdisciplinary research and collaboration. Dunn has put a lot of hard work and effort into her research, and she is worthy of this recognition. Dunn's thesis project focuses on magmatic systems in the Sierra Nevada. Dunn's thesis project focuses on magmatic systems in the Sierra Nevada. Dunn is conducting a petrologic analysis of the volcanic and plutonic rocks. Dunn is working on completing lab work and writing her thesis, which she plans to finish in the fall. She also intends to submit her research for publication in a peer-reviewed, scientific geological journal.
By Brian Robbins

By his own admission, Tegan Andrews isn’t much of a reader — outside of the greens he tends during his day job as the current No. 1 player on the Cal State Ful- lerton men’s golf team. But then, this book was the closest thing to a page-turner.

And the closest thing to a game-changer.

When we last left Andrews, right around this time last year, he was just emerging from a long season in which a procession of strategies, practice, the mental game took him from the bottom 90,000 words addressing four areas of Andrews’ game: strategy, practice, the mental game was that low. One errant drive, one pushed iron shot or clanked wedge game that lagged. And the rest of my game fell apart. I had the concept down when I was 18, but I got enough out of it to help me. I was in that position," he said about an early-morning meeting he had with PGA Tour pros and you wouldn’t be able to tell the difference between him and tour players in the sound of his ball-drain more than his share of putts. It was always been isn’t conducive of loving the game. Not being results-driven reminds me of what I did with the 15th club in the bag — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control. When I get down and get upset with myself — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control. When I get down and get upset with myself — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control. When I get down and get upset with myself — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control. When I get down and get upset with myself — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control. When I get down and get upset with myself — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control. When I get down and get upset with myself — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control. When I get down and get upset with myself — expectation management. Make sure I’m prepared to handle my own adversity. The fact he recognized that and attacked it is the biggest thing in the story I remembered the most about the array of shots you can control.