



PROFESSOR HASTINGS AND STUDENTS CHECK AN AIR MONITORING SENSOR ATOP "THE ROCK" TO UNDERSTAND THE DRIVERS OF POLLUTION AND LINKS TO HEALTH OUTCOMES IN DISTINCT NEIGHBORHOODS.

Shaping Scalable Climate Solutions

By Elizabeth Kellner Suneby '80

The Institute at Brown for Environment and Society is working to redefine climate leadership through experiential learning, solutions-driven research and collaboration across and beyond the University.

From air pollution to extreme weather to habitat loss, the broad scope of climate and sustainability risks is becoming more and more apparent. Durable and scalable solutions to these critical challenges require a systems approach that draws upon expertise from scientific, political, economic, technological and social science fields.

This perspective has fueled the academic and research success of the Institute at Brown for Environment and Society (IBES) since its founding in 2014 as the University's hub for climate, sustainability and environmental scholarship. As IBES marks its 10-year anniversary, the institute is experiencing a boom in research initiatives that deliver real-world impact and is playing a growing role

in national and international partnerships to confront climate problems.

According to IBES Director Kim Cobb, a professor of environment and society and earth, environmental and planetary sciences, the institute has established itself as a leader in accelerating solutions at the local, national and global levels by engaging Brown experts across disciplines and nonacademic collaborators. These include government agencies, elected officials, private industry, nonprofit organizations and community members.

"Collaboration is in Brown's DNA. IBES is harnessing Brown's unique strengths and our student and faculty's passion for building

a just, sustainable world," says Cobb. "To be the engine of effective solutions and a training ground for the next generation of changemakers, we are attracting funds for research and student training that broaden participation in our work across campus and beyond."

Driving collaborative research

IBES has experienced a 500% increase in sponsored research in the past five years. With a grant from the National Science Foundation, IBES launched a coastal resilience research hub, bringing together universities, organizations and stakeholders to address flooding and its societal impacts in New England's low-lying coastal communities.

IBES also launched Equitable Climate Futures — a three-year initiative to build Brown's capacity for climate solutions research, focused on historically marginalized communities — with the School of Public Health, School of Engineering, Watson Institute for International and Public Affairs and Swearer Center for Public Service. And with a grant from the National Institute on Aging, researchers from IBES and Brown's School of Public Health will investigate ways to mitigate the health consequences of climate change on America's aging populations.

IBES faculty are also influential in policy initiatives. They lend expertise at all levels of government, and they regularly accompany students on trips to Washington, D.C. to share their research and classroom projects with policymakers and other influencers.

With joint appointments in nine academic departments, "IBES scholars don't fit into any box," says Scott Frickel, the institute's director of research. "We tackle questions that resist disciplinary answers, encouraging students to confront the complexity of environmental problems."

Preparing collaborative leaders

The number of environmental studies and sciences concentrators has more than doubled in the last five years, and non-concentrators account for most of the students in the institute's classes. In IBES's foundational Environmental Studies class, undergraduates work with community-based partners to

address local problems, such as water pollution. In a course centered on the Breathe Providence research project, students apply their technical, communications and community engagement skills to improve air quality standards and policies.

Dov Sax, a professor of environment and society, ecology, evolution and organismal biology, notes undergrads' key roles in faculty-led research, estimating that at one point, students were lead authors on more than one-third of the research papers from his lab.

The institute also attracts Ph.D. students and recipients of Brown's prestigious Voss Postdoctoral Fellowship. Voss postdoc Jada Ko, an anthropological archaeologist, studies biodiversity loss with a focus on freshwater turtles. She says she was "drawn to Brown because of the interdisciplinary environment at IBES."



WHAT BRINGS JADA KO (LEFT), A ZOOARCHAEOLOGIST AND VOSS POSTDOC, TO IBES? TURTLES! WHILE WORKING IN THE FIELD FOR HER DISSERTATION, KO "SAW THE POTENTIAL TO PARTICIPATE AS AN ARCHAEOLOGIST IN THE CONTEMPORARY DISCOURSE CONCERNING BIODIVERSITY CONSERVATION."

Looking ahead, IBES is broadening its curriculum to welcome more students — including establishing a new program in sustainable finance and investing.

"We have big dreams for the impact Brown will have in delivering solutions to the climate crisis and equipping our students to lead in this space for decades to come," says Cobb. "We want nothing less than for Brown to redefine climate leadership in the 21st century in higher education."

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