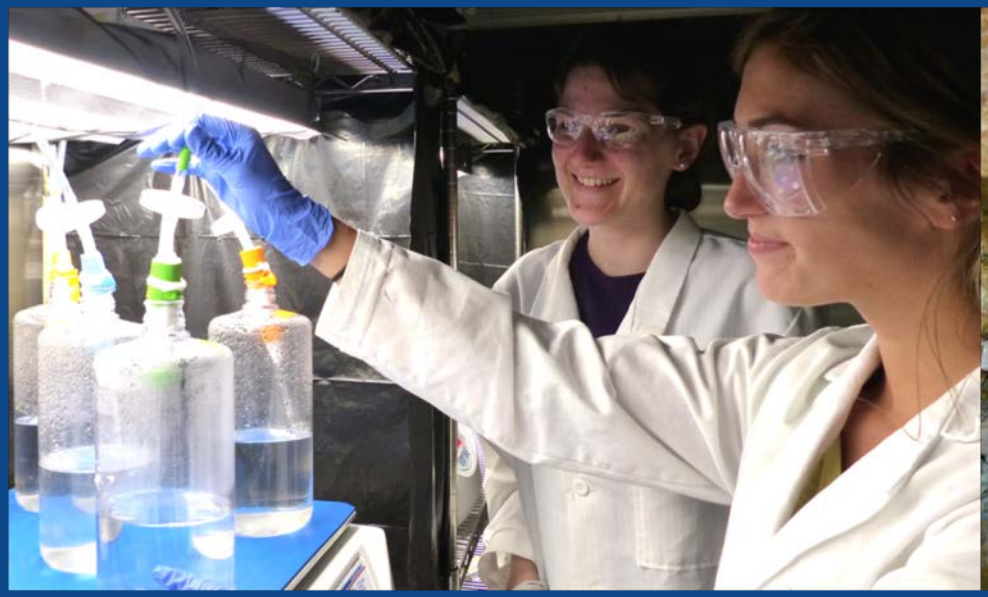
Women in Science at Lamont

Women in Science at Lamont

At Lamont, our pioneering women scientists do important, fascinating, and exciting work, and serve as role models for the next generation.

Learn more about our amazing women in science.



WOMEN IN SCIENCE

Einat Lev

Einat is a volcanologist. She studies volcanoes and has traveled the world examining how they erupt and how hot lava flows from deep inside the earth across the landscape.

Einat seeks to understand the physical processes influencing the impact and force of volcanic eruptions.

Einat Lev

As a girl, Einat wanted to be a photographer for National Geographic; now she is an expert in a field very relevant to it! Einat has visited various volcanoes – in Hawaii, Chile, Iceland – and was one of the first scientists to arrive on the scene when Kilauea erupted.

Einat Lev

Learn more about Einat's work: http://einatlev.wixsite.com/einatlev

Jacqueline Austermann

Jacky is a geodynamicist and paleoclimatologist. She studies how dynamics in Earth's interior cause sea level changes over hundreds, thousands, and millions of years.

Jacky uses computer simulations to model ups and downs of Earth's surface to better understand how sea level will change in today's warming world.

Jacqueline Austermann

Jacky seeks to broaden the impact of her research by starting to work with local communities in the Arctic and the tropics to prepare them for future sea level and coastal change. Jacky recently received an AGU Section Award for Tectonophysics!

Jacqueline Austermann

Learn more about Jacky: https://eesc.columbia.edu/faculty/jacqueline-austermann

Ruth DeFries

Ruth is an environmental geographer and a leader in sustainable development. She is a pioneer who received a MacArthur "Genius" Award. Ruth was elected to the National Academy of Sciences, one of the highest scientific honors in the US.

Ruth uses remote sensing to study the intersection of human society and nature, using science to identify healthy landscapes to support humans and conserve biodiversity.

Ruth DeFries

Ruth has worked throughout the tropics, including the Brazilian Amazon, India and other countries, and has led and developed innovative educational programs in sustainable development. Ruth is strongly committed to linking science with policy to benefit society.

Ruth DeFries

Learn more about Ruth's work: www.ruthdefries.e3b.columbia.edu/

Renata Constantino

Renata is a marine geophysical researcher. She works mainly with gravity inversions to map the bathymetry, the basement (surface under the sediments) and the Moho (Crustal-Mantle Interface) in oceanic areas.

Renata is currently working with gravity studies over Antarctica (Ross Sea and George VI Ice Shelf) in the Polar Geophysics Lab at Lamont.

Renata Constantino

Renata started her career as a physical oceanographer in Brazil where she used to work with satellite oceanography. As an undergraduate Renata did a course on computing for geophysicists and she fell in love with geophysics. Now, it is her life!

Pic: The Guardian

Pic: Wikipedia

Renata Constantino

Learn more about Renata: https://www.ldeo.columbia.edu/user/barrella

Bärbel Hönisch

Bärbel is a geochemist who seeks to understand the role of the ocean in global climate change. She grows living foraminifera (calcifying plankton) in the lab and tests how their chemical composition changes in response to temperature and acidity.

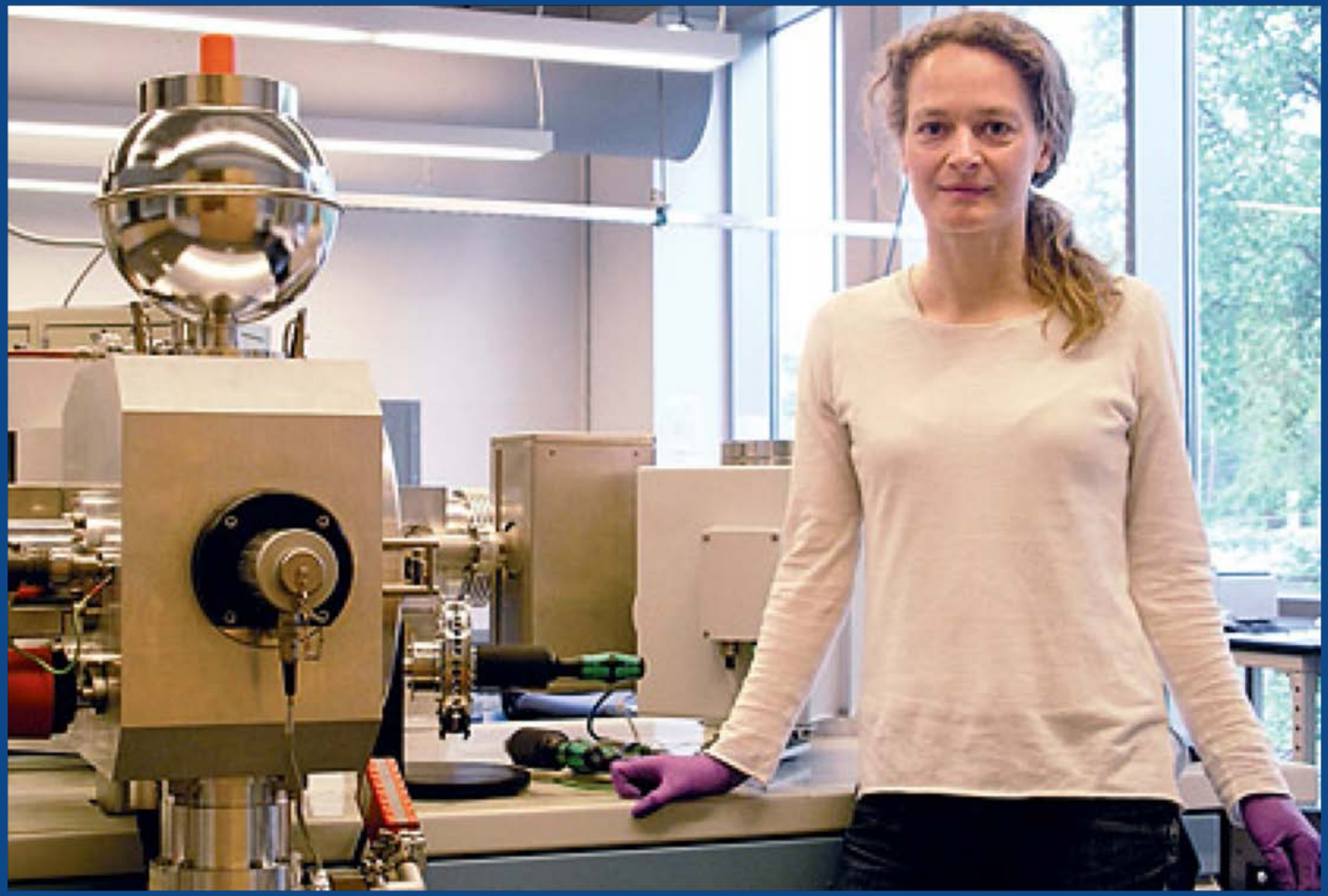
Bärbel uses these to reconstruct past climate change, where fossil foraminifera shells are extracted from ocean sediments going back thousands to millions of years.

Bärbel Hönisch

Ever since she was a girl, Bärbel loved the ocean, swimming in the waves, observing creatures in rock pools, and digging her feet in the sand. Now as a leading expert in ocean acidification, her work takes her ocean diving!

Pic: Wikimedia Commons

Bärbel Hönisch



Learn more about Bärbel: www.ldeo.columbia.edu/~hoenisch/home.html

Laia Andreu-Hayles

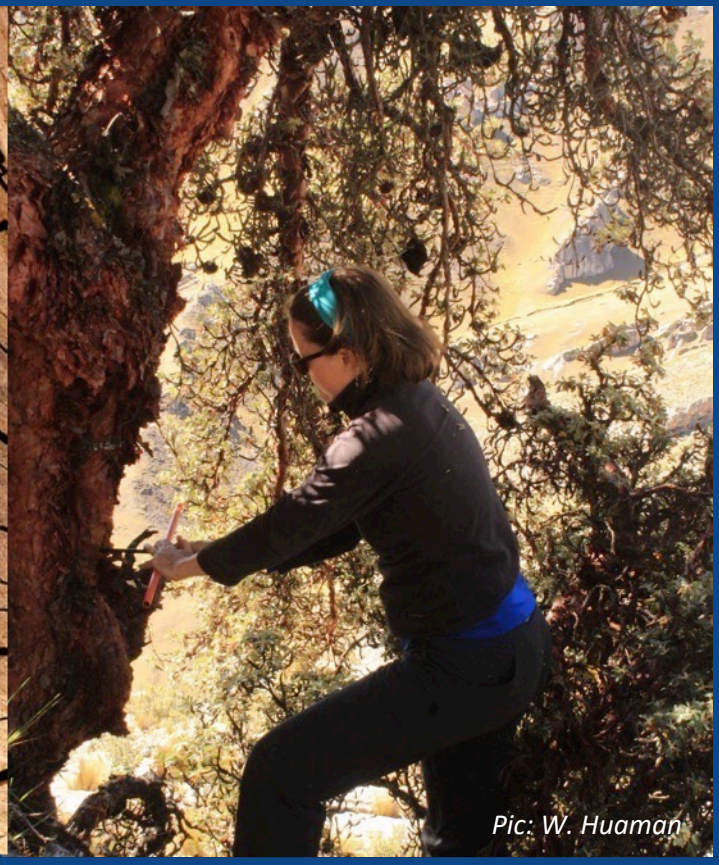
Laia is a scientist who uses tree rings and stable isotopes to reconstruct past climate conditions and study the interactions between forests and the environment.

Laia's work is focused on assessing the impact of global change on forests and reconstructing past climate variability.

Laia Andreu-Hayles

Laia was born in Barcelona and moved to New York in 2009 to work as a Lamont scientist. She has been conducting research in Alaska, Mongolia and the Mediterranean region. Recently she has been pioneering tropical dendrochronology in South America.

Pic: Kevin Anchukaitis



Pic: W. Huaman

Laia Andreu-Hayles

Learn more about Laia's work: https://andreu-hayles.ldeo.columbia.edu/

Genevieve Coffey

Genevieve is a graduate student interested in earthquakes and fault mechanics. She is curious about how earthquakes are expressed in the field.

In particular, Genevieve is interested in trying to extract information about these "fossil" earthquakes so we can better understand earthquakes today.

Genevieve Coffey

Genevieve grew up in New Zealand, where the Pacific and Australian plates meet, a similar tectonic setting to the San Andreas Fault in California. Spending so much time in a seismically active region fostered her interest in earthquakes and motivated her to learn about earthquake-related hazards.

Genevieve Coffey

Learn more about Genevieve: https://eesc.columbia.edu/student/Genevieve-coffey

Galen McKinley

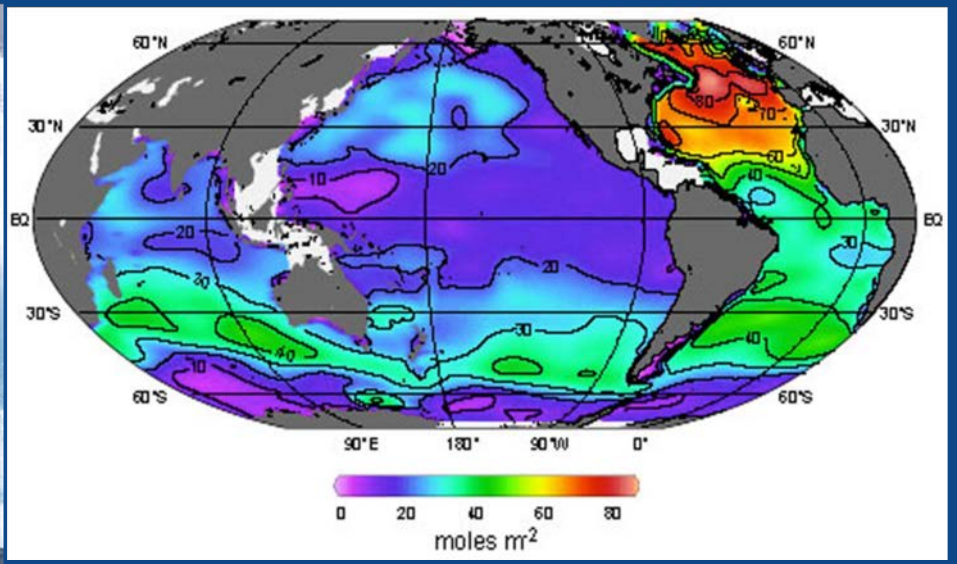
Galen is an oceanographer and a climate scientist. She studies how the physics, chemistry, and ecology of the oceans and Great Lakes respond to climate variability and change.

Galen seeks to understand how these systems shape the global carbon cycle. She uses computer simulations and analyzes large datasets to achieve this.

Galen McKinley

Galen is passionate about sharing the joys and insights of her science with her colleagues, students, the public and policy makers. She also serves as a mentor and leader for the MPOWIR program that mentors junior women scientists to become physical oceanographers.

Pic: US State Dept.



Galen McKinley

Learn more about Galen's work: https://galenmckinley.github.io/

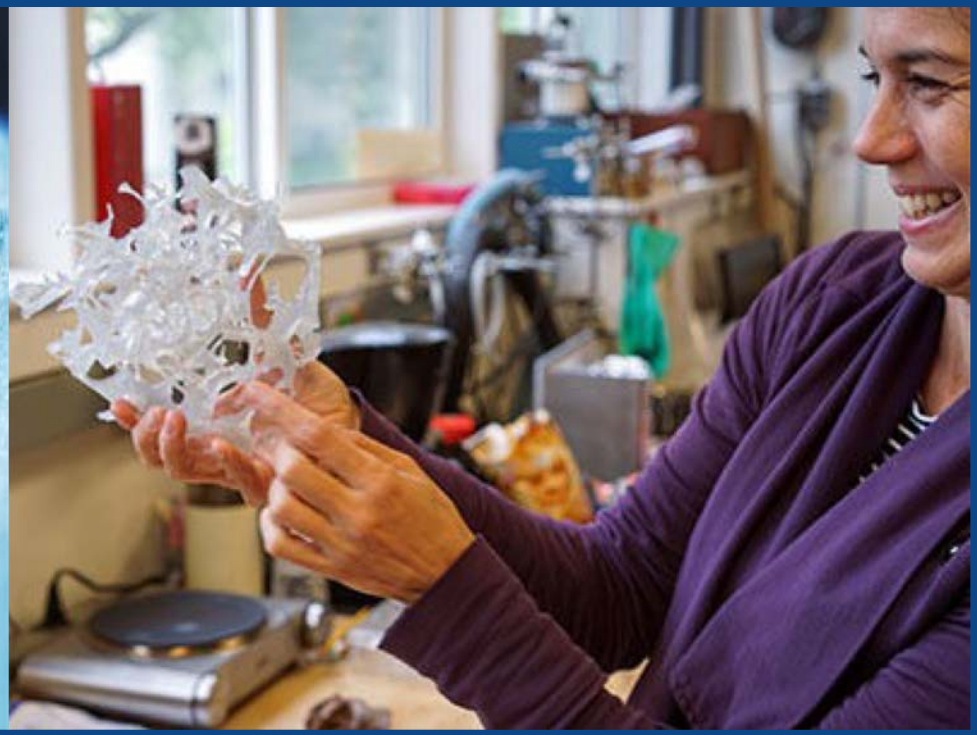
Christine McCarthy

Christine is a geophysicist. She studies ice and rocks in order to understand how glaciers flow and how icy moons of Jupiter and Saturn turn tidal energy into heat.

Christine uses lab equipment to squeeze, slide, and tickle ice. She "tortures ice to learn its secrets". She measures the physical properties of ice and rock to better understand the dynamics of geologic processes.

Christine McCarthy

Christine used to be a professional dancer before she found geoscience! She loved rock climbing, and was so fascinated by different rock formations that she decided to study geology and is now an expert in rock mechanics.



Christine McCarthy

Learn more about Christine: www.ldeo.columbia.edu/user/mccarthy

Miranda Cashman

Miranda is graduate student whose research aims to reconstruct sea level during past warm periods. She seeks to understand how sea level rose in the past 125,000 years based on how ice sheets melted in warmer conditions.

Miranda graduated from Middlesex Community College with an Associates degree and a Bachelors from U. Mass Amherst in Geology.

Miranda Cashman

As a child, Miranda used to visit coastlines and beaches with her mother and she fell in love with the sea and with nature. She continues to feel awe and wonder at the beauty of the Earth and its dynamic processes, and feels lucky to be able to continue studying the coasts and the sea.

Miranda Cashman

Learn more about Miranda: https://eesc.columbia.edu/student/miranda-cashman

"The Earth is so dynamic and Earth processes are so humbling and awe-inspiring. Whether you're an Earth scientist or not, I think we all just need to stop and appreciate nature every once in a while. It puts our lives into perspective and highlights why caring about the planet is important."

~ Miranda Cashman
Graduate Student

Maureen Raymo

Maureen (Mo) is a leading paleoceanographer and marine geologist who does pioneering work using ocean sediment cores to learn about climate change in the Earth's past.

Mo has received several international accolades and was the first woman to receive the prestigious Wollaston Medal in its 183 year existence. She was also elected to the National Academy of Sciences, one of the highest scientific honors in the US.

Maureen Raymo

As a girl Mo was inspired by the adventures of Jacques Cousteau and was drawn to ocean science. Mo has been described as "… one of the foremost and influential figures in the last 30 years" and was listed by Discover magazine as one of the 50 most important women in science.

Maureen Raymo

Learn more about Maureen's work at: http://moraymo.us/

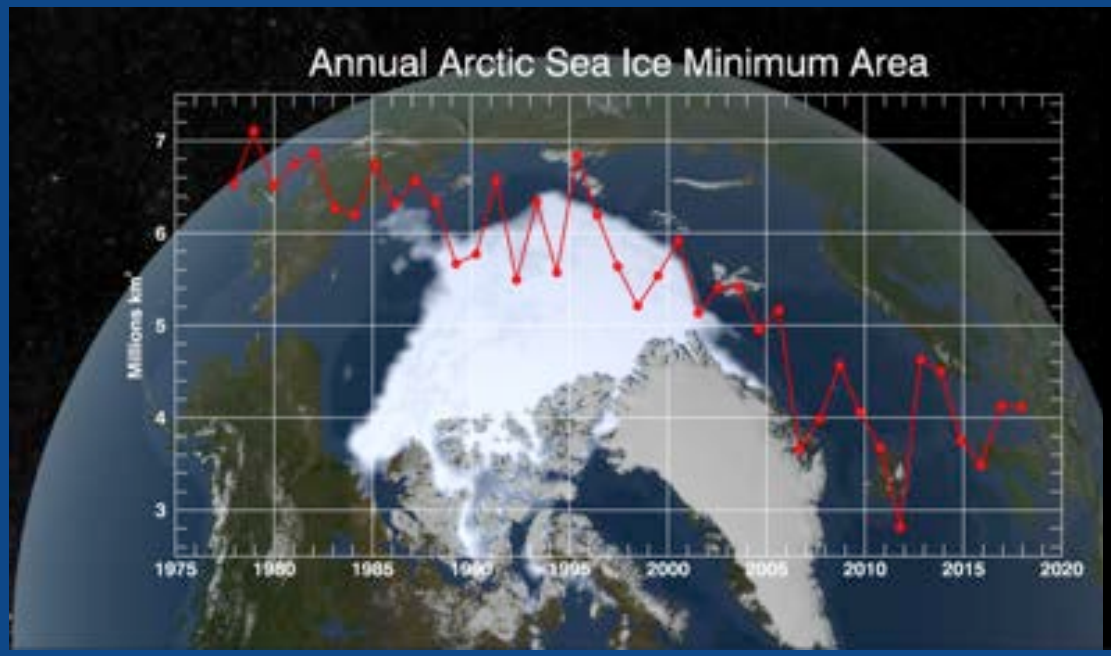
Yutian Wu

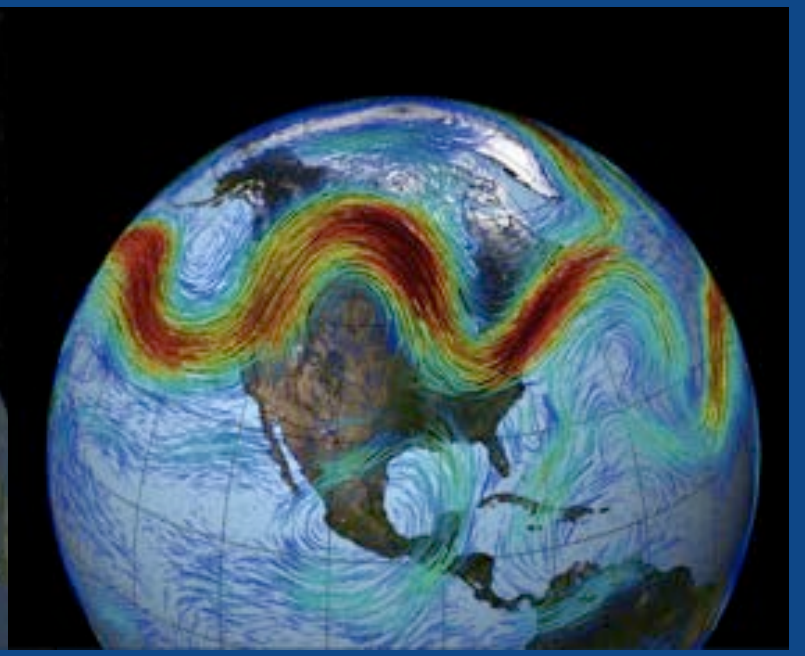
Yutian Wu is a climate dynamist who uses both observational datasets and atmospheric models to understand the atmospheric circulation and its response to anthropogenic climate change.

Yutian was the recipient of the 2017 National Science Foundation Faculty Early Career Development (CAREER) Award. Yutian's work focuses on understanding the interaction between the atmospheric circulation and the Arctic sea ice.

Yutian Wu

Yutian's passion in climate dynamics lies in its connection to Physics and Math, which she really enjoys, and also its close relevance to life and society.





Yutian Wu

Learn more about Yutian: https://www.ldeo.columbia.edu/~yutianwu/

Michela Biasutti

Michela is an atmospheric scientist. She studies variability of rainfall in the tropics, from the development of weather systems and its changes associated with man-made and geological climate change .

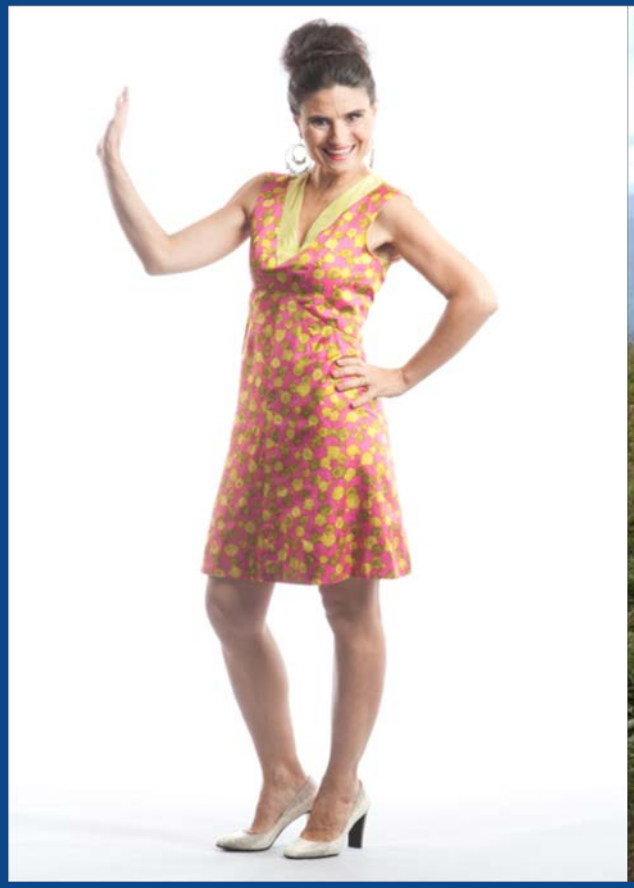
Michela graduated cum laude in physics at the University of Trieste in Italy. Her interest in climate modeling and climate dynamics brought her to the US.

Michela Biasutti

Michela enjoys collaborating with scholars outside her discipline, working on the effect of climate change on African ecosystems and crops and on the legal framework of UN-led climate change.

Pic: Wikimedia Commons

Michela Biasutti



Learn more about Michela's work: https://www.ldeo.columbia.edu/~biasutti/

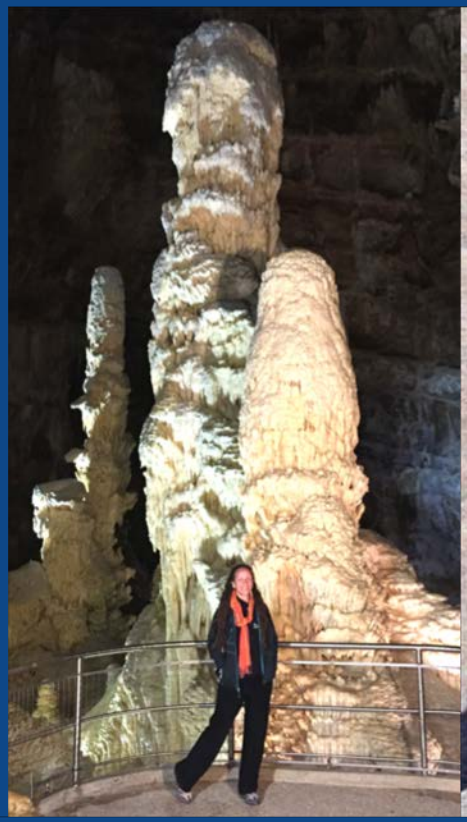
Hannah Sweets

Hannah is a research assistant who works on preparing basalts that she dredged in the Rio Grande Rise in South Atlantic. She prepares sandstones and dolerites for major element analysis.

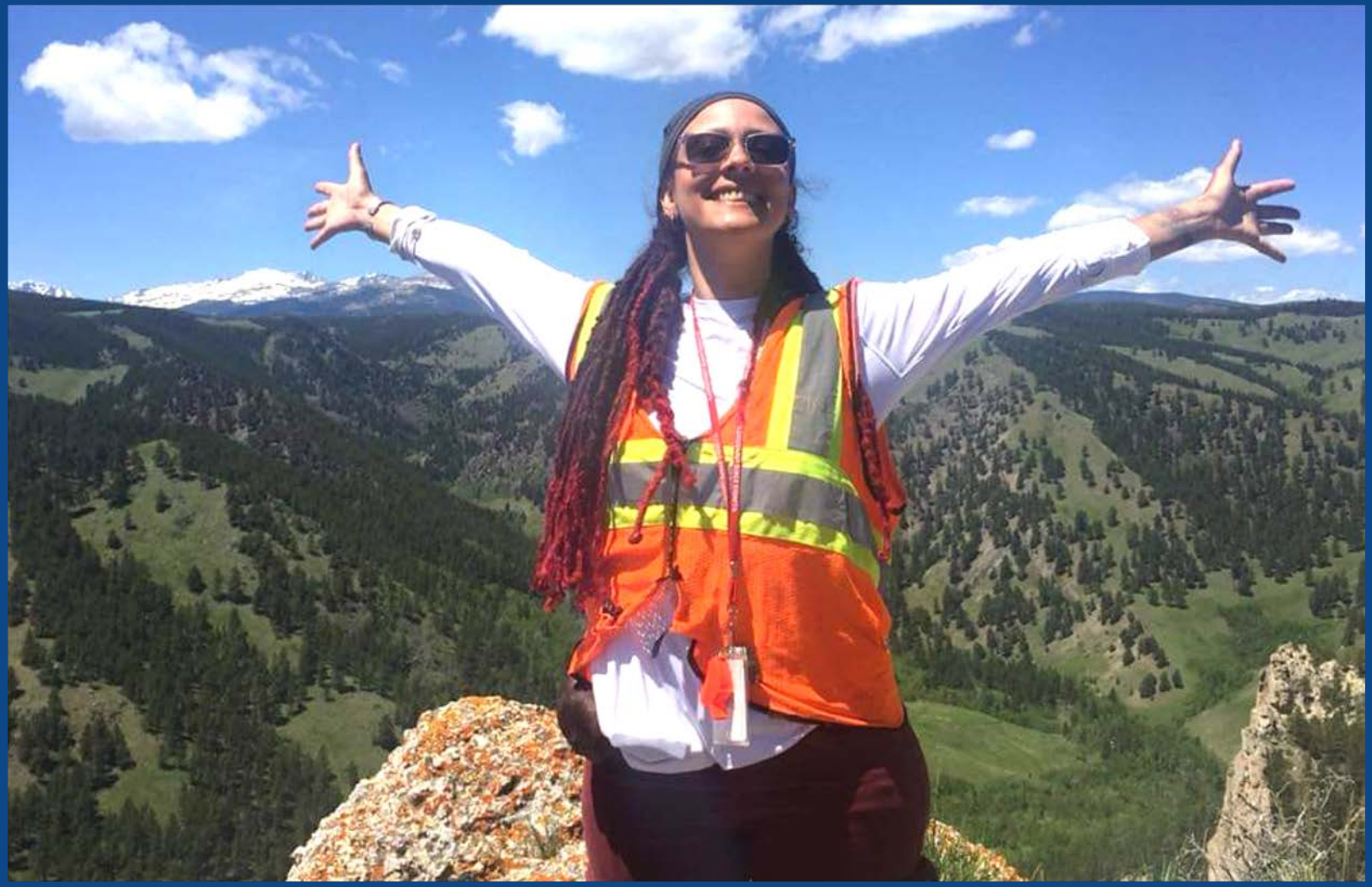
Hannah has traveled to several places on field trips, including Italy, France, Wyoming, South Dakota, and others. To support herself through college, Hannah worked as a bartender.

Hannah Sweets

Hannah was a professional chef in Aspen! She decided to go back to school to Austin Community College to study botany with the intent of advancing her culinary career. But she fell in love with geology and earth science, and hasn't looked back! She graduated from Columbia University in earth science.



Hannah Sweets



Learn more about Hannah: https://www.ldeo.columbia.edu/user/hsweets

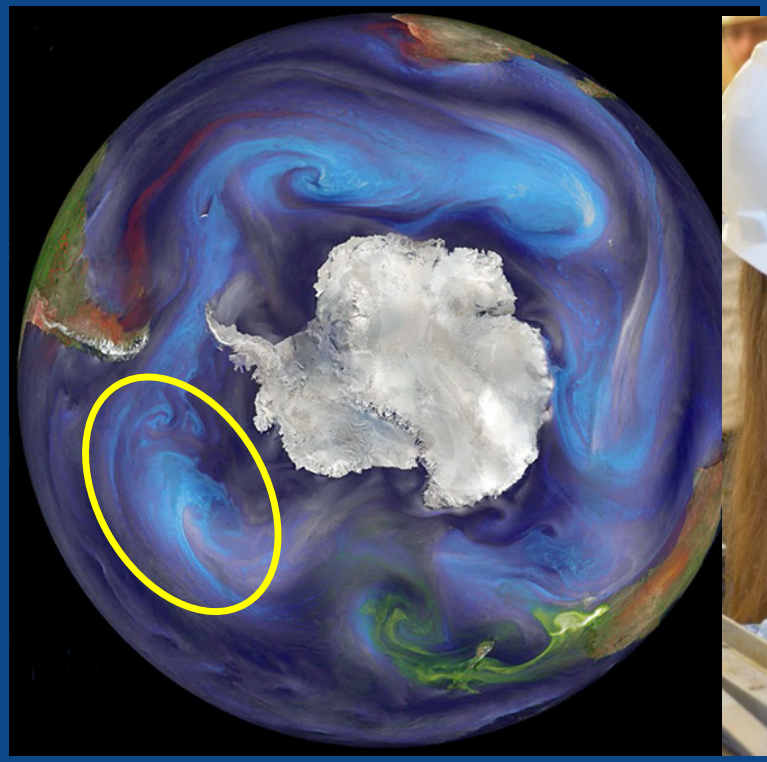
Gisela Winckler

Gislea is a climate scientist and a paleoceanographer. She uses natural climate archives such as ocean and lake sediments, ice cores or the bedrock under the giant ice sheets in Greenland and Antarctica, to unravel the history of climatic and environmental conditions on Earth.

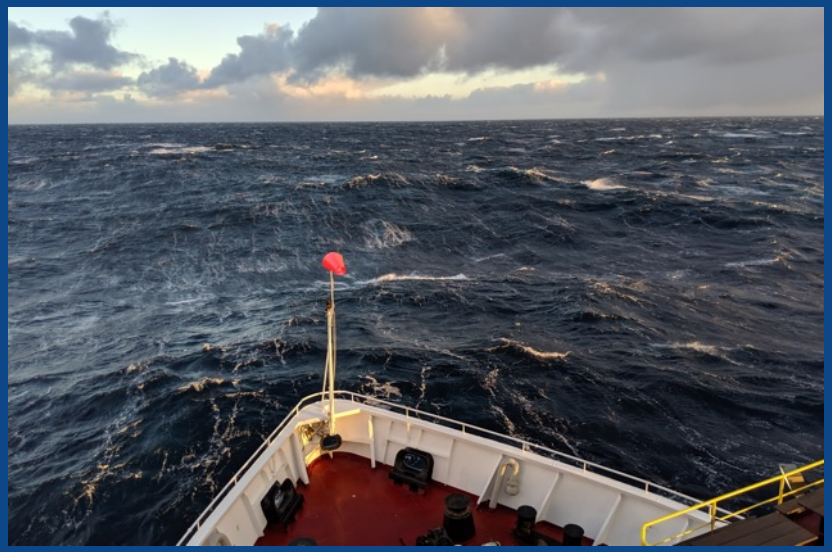
Gisela received Lamont's Excellence in Mentoring Award for outstanding mentoring. She is also passionate about promoting STEM diversity.

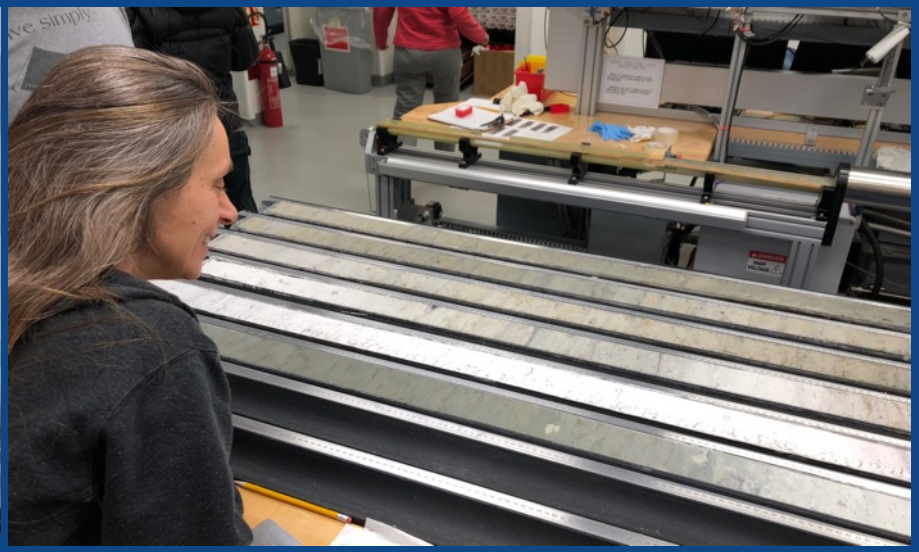
Gisela Winckler

Gisela uses information on natural variability in the past to better understand and predict future changes to climate, such as future sea level rise. In May – July 2019, Gisela led an expedition on the drill ship Joides Resolution to the South Pacific, one of the most remote and stormy regions in the world ocean.



Gisela Winckler





Learn more about Gisela: www.ldeo.columbia.edu/~winckler/Welcome.html

Chia-Ying Lee

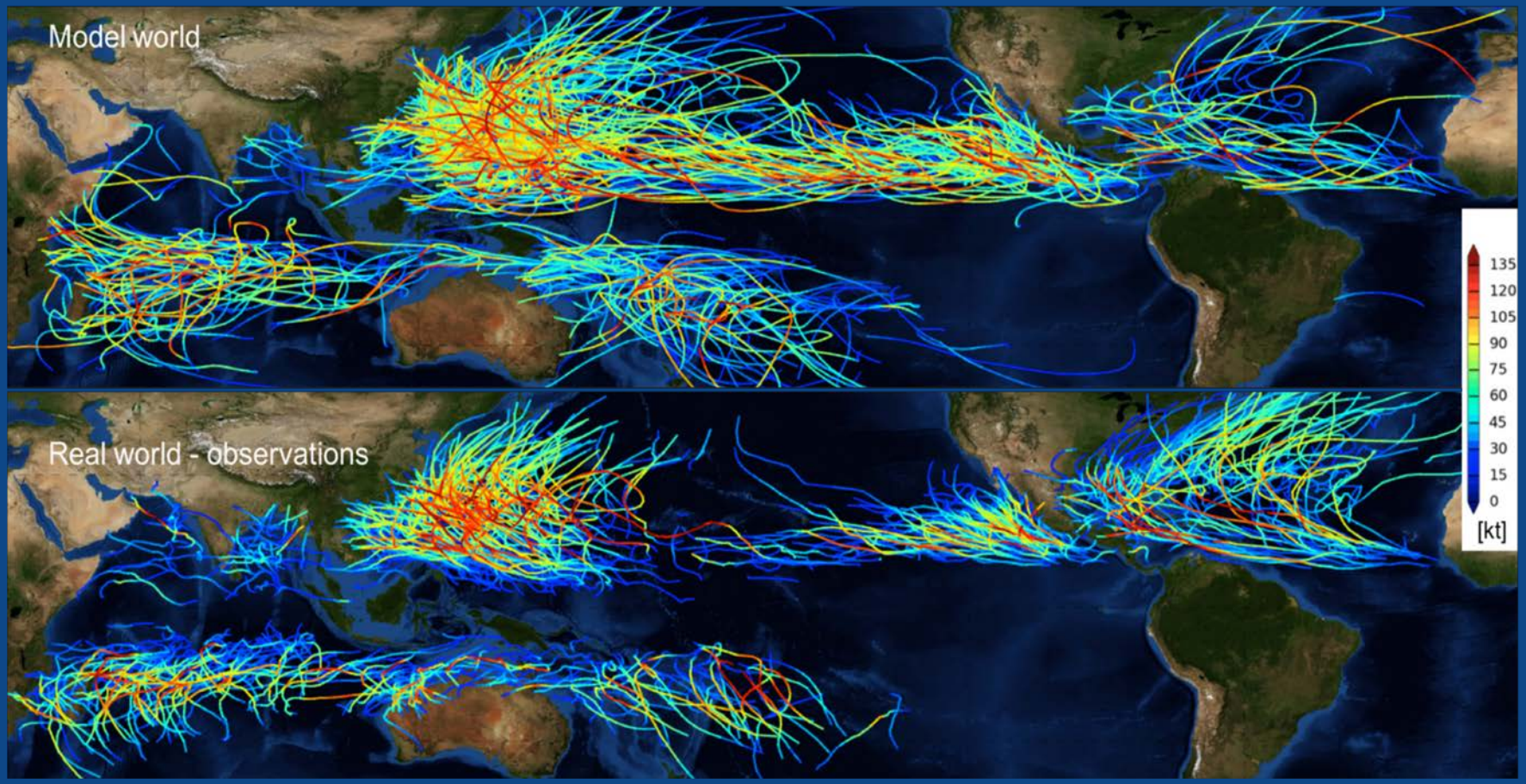
Chia-Ying is an atmospheric scientist. She studies weather, particularly Tropical Cyclones, a generic term for hurricanes.

Chia-Ying seeks to address how often and how strong hurricane-induced strong wind, coastal flooding, and inland flooding will be in a warming climate. She uses the newly developed Columbia Hazard Model to estimate improved risk assessments.

Chia-Ying Lee

Chia-Ying travels for fieldwork, which she thoroughly enjoys! In college, Chia-Ying majored in atmospheric physics as she enjoyed using it to explain weather, climate, and why we have seasons.

Chia-Ying Lee



Learn more about Chia-Ying: www.ldeo.columbia.edu/directory/chia-yinglee

Dorothy Peteet

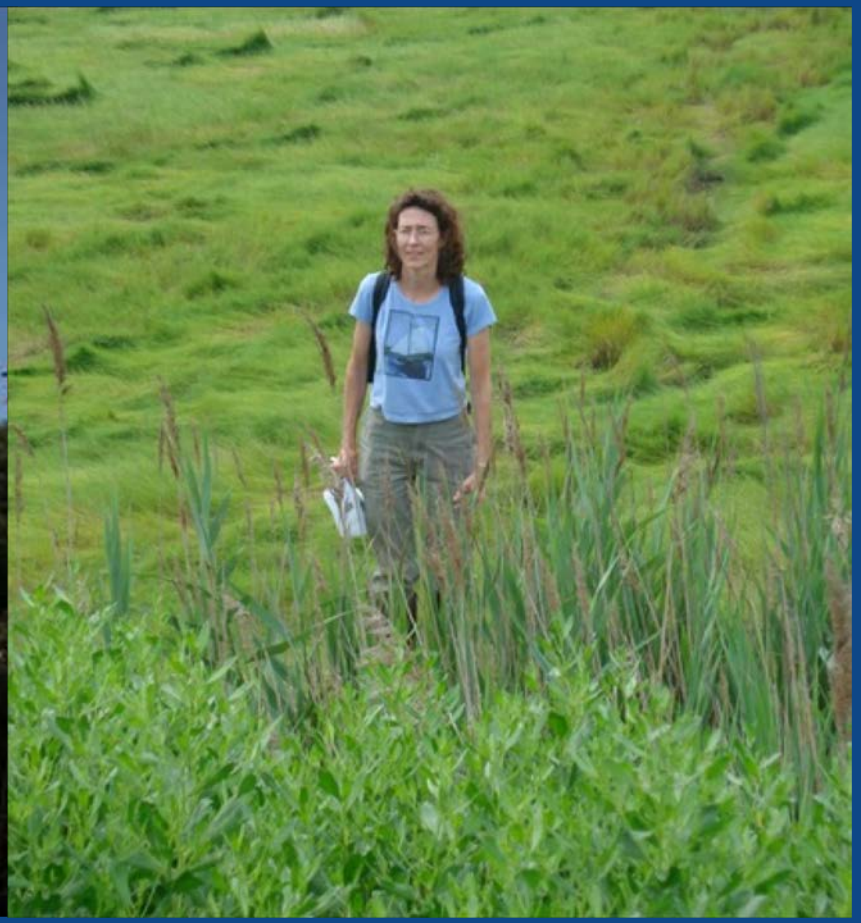
Dorothy is a paleoecologist. She studies landscapes to better understand past climate shifts. She visits wetlands (salt marshes, fresh marshes, bogs, fens, and swamps) to study plant ecology and retrieve and analyze sediment cores.

Dorothy is particularly interested in abrupt climate change and patterns of droughts and floods as well as warm intervals and recent cooling such as the Little Ice Age.

Dorothy Peteet

Dorothy analyzes pollen, macrofossils, x-ray fluorescence, isotopes in sediment cores to understand past changes through time. Her travels take her to Siberia, Alaska, southeastern US, and Easter Island as well as the Hudson River marshes, Black Rock Forest and upland lakes.

Dorothy Peteet



Learn more about Dorothy's work: https://www.ldeo.columbia.edu/user/peteet

Terry Plank

Terry is a volcanologist. She studies magmas, volcanoes, and crystals in Hawaii, Guatemala, and Alaska.

Terry is a pioneer who received a MacArthur "Genius" Award. Her work involves the crystal chemistry of lava minerals in order to determine magma ages and movement. She studies volcano deposits for clues as to what makes some eruptions more explosive than others.

Terry Plank

Terry became interested in volcanoes as a student when she visited the Arenal volcano in Costa Rica and sat on top of a slow moving lava flow! Terry also traveled to the Island of Four Mountains in the Aleutian Islands, where every island is a volcano.

Pic: Wikimedia Commons

Terry Plank

Learn more about Terry's work: https://www.ldeo.columbia.edu/user/tplank

María Uriarte

María is a tropical forest ecologist who seeks to understand how these ecosystems recover after large, severe disturbance (e.g., hurricanes) and from human land use. She conducts her field work in Puerto Rico and Latin America.

Following Hurricane Maria in Puerto Rico, María visited El Yunque Rain Forest to study the damage and better understand the forest.

María Uriarte

María uses field data and models to examine how severe disturbance and human land use influence the biological diversity and structure of tropical forests.

María Uriarte

Learn more about María's work: http://www.columbia.edu/~mu2126/

Kim Kastens

Kim Kastens started out as a marine geologist, but then changed her focus to become a pioneer in the emerging field of Geoscience Education Research.

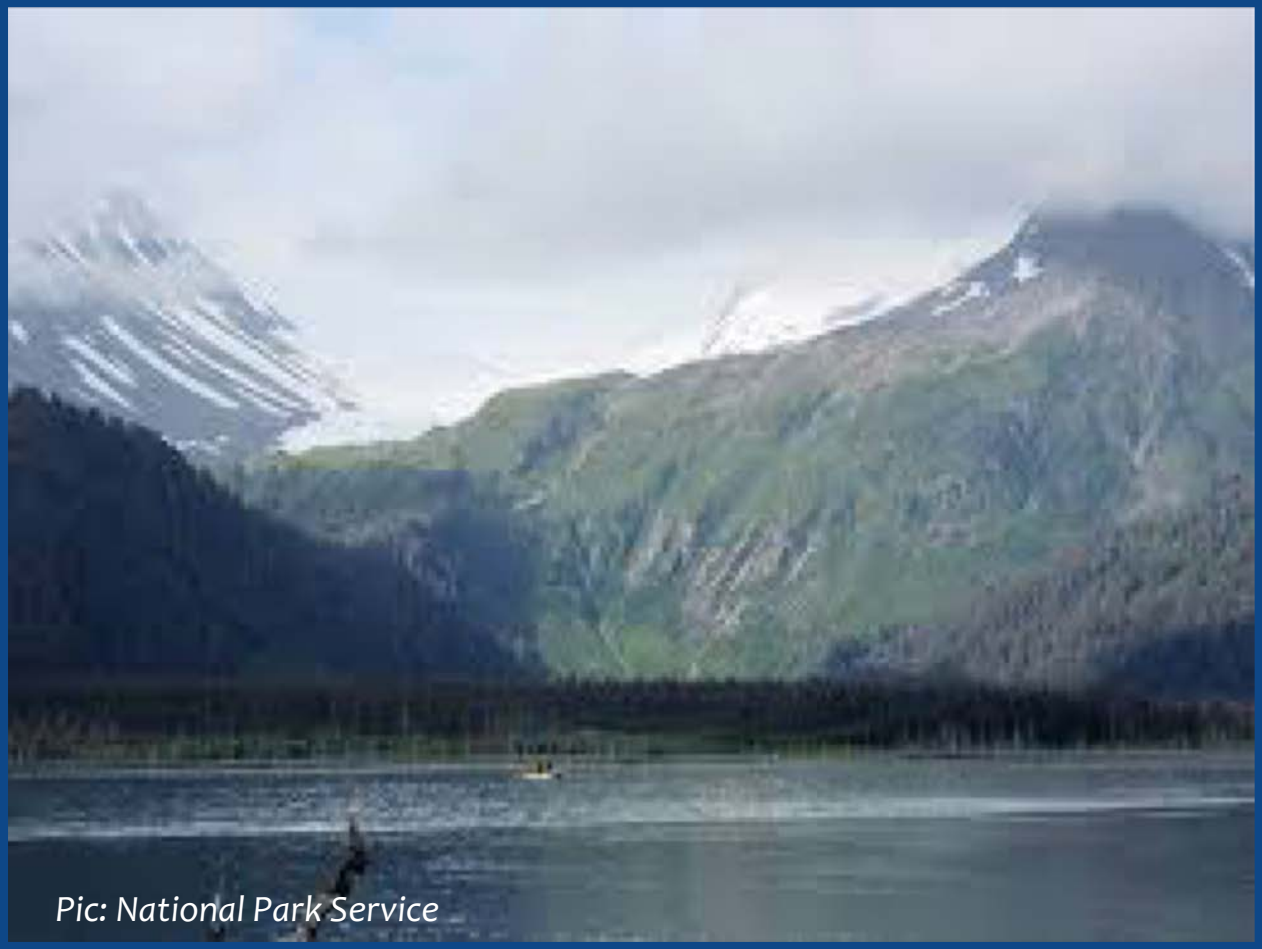
Much of Kim's research concerns spatial thinking, or how students and geoscientists use information about spatial attributes such as position, size, shape, configuration, and trajectory to make inferences about Earth processes.

Kim Kastens

Kim used the Columbia campus as a field site for researching fourth graders' understanding of the relationship between positions on a map and visible features in the real world. Kim was also the first female co-chief scientist on the drill ship Joides Resolution.

Pic: Wikimedia Commons

Kim Kastens



Pic: National Park Service

Learn more about Kim's work: https://www.ldeo.columbia.edu/~kastens/

WOMEN IN SCIENCE

Robin Bell

Robin is a pioneering explorer who leads research on ice sheets, tectonics, and mid-ocean ridges. She has led several scientific expeditions to Greenland and Antarctica.

Robin is the President-elect of the American Geophysical Union (AGU) the world's largest geoscience professional society. She is also a strong advocate for women in science and was the first woman to chair the National Academy of Sciences Polar Research Board.

Robin Bell

Robin has made several important discoveries, including a volcano beneath the West Antarctic ice sheet. She has a mountain named after her in Antarctica! Robin has been at Lamont since graduate school; her children grew up playing around Lamont's rose garden.

Robin Bell

Learn more about Robin: www.ldeo.columbia.edu/~robinb/Share.html

Suzana Camargo

Suzana's expertise lies in hurricanes and typhoons, also known as tropical cyclones.

She seeks to understand how tropical cyclones are affected by climate in various time scales. For example: why are some bursts of activity in a hurricane season followed by quiet periods? And what makes a tropical cyclone more active and others quiet?

Suzana Camargo

Suzana grew up in Brazil, and was originally a physicist, studying in Brazil and Germany. She became so fascinated by hurricanes and typhoons that she changed fields and began studying them.

Suzana's journey as a Latina scientist has been an interesting one. Suzana is married to a fellow scientist and has two children.

Suzana Camargo

Learn more about Suzana: https://www.ldeo.columbia.edu/~suzana/

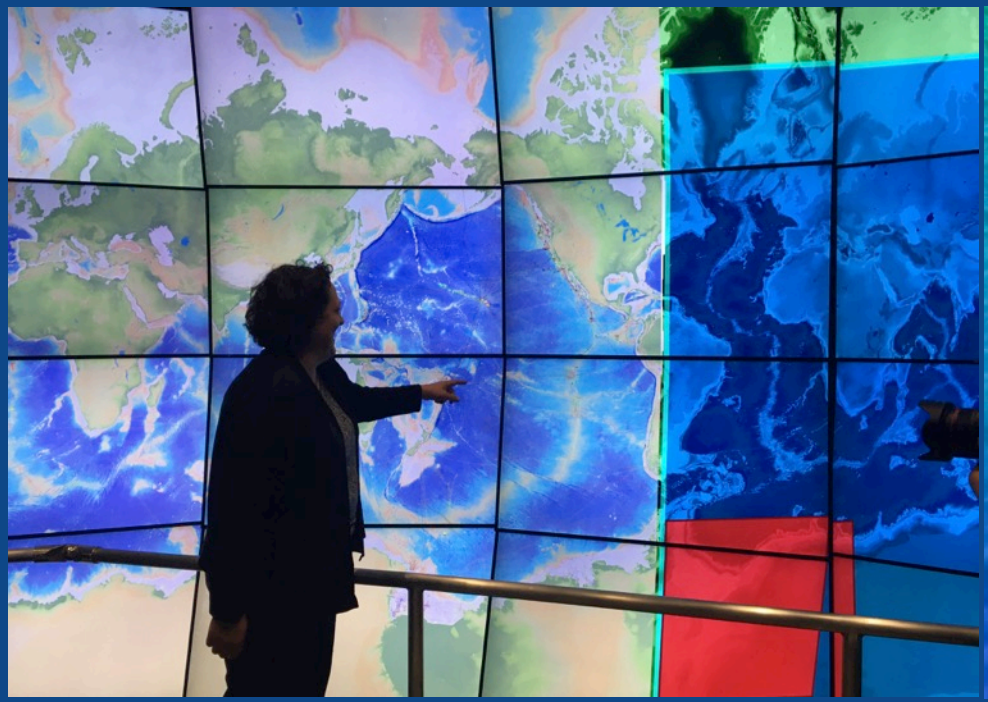
Vicki Ferrini

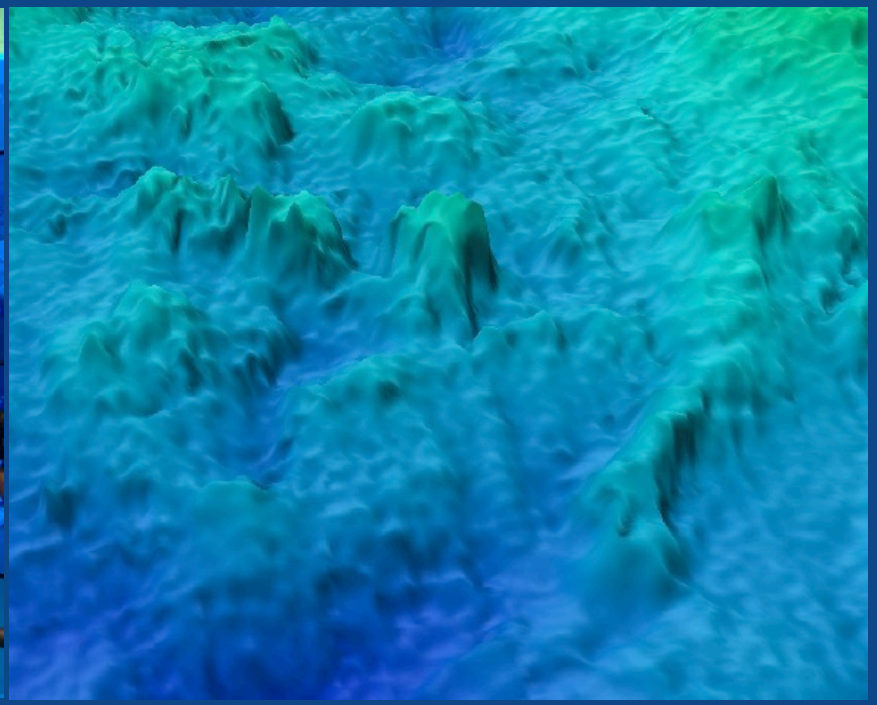
Vicki is a geophysicist who uses mapping technologies to understand the shape of the seafloor and what it means about the processes that create it.

As a geoinformaticist she also works to ensure that diverse marine geoscience research data are preserved, publicly available, and readily accessible to researchers and the public alike.

Vicki Ferrini

Growing up on the beaches of Cape Cod, Vicki has always wanted to see beneath the ocean. As a leading expert in ocean mapping she explores the seafloor all over the world using data acquired with ships and robots. Vicki recently received the Esri SAG Award for special achievement in GIS!





Vicki Ferrini

Learn more about Vicki: https://www.ldeo.columbia.edu/~ferrini/

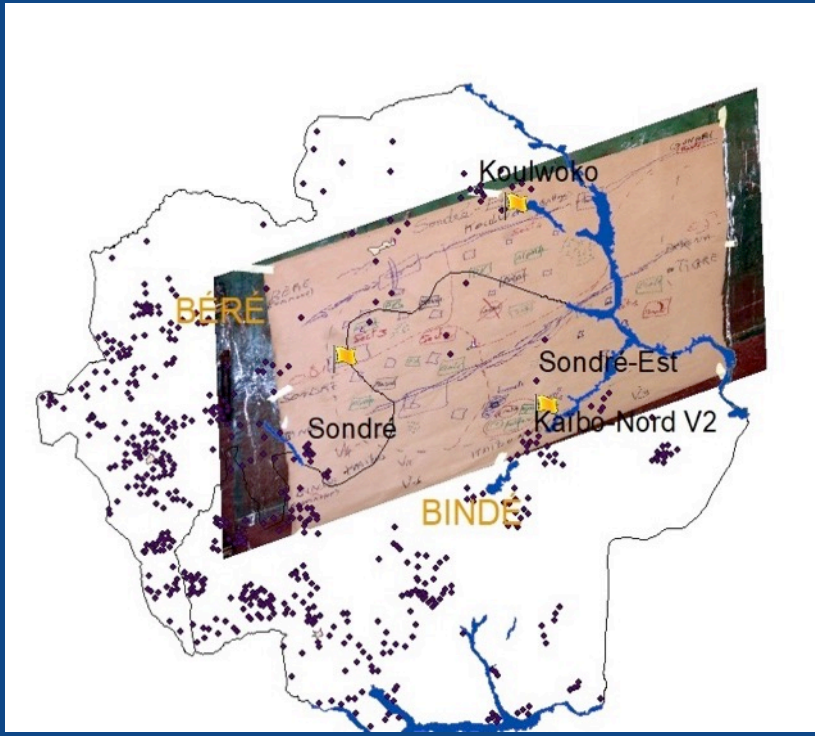
Elisabeth Nébié

Elisabeth (Lisa) Nebie is a human ecologist who seeks to understand the relationship between reforestation and food security. Lisa was a consultant with UNESCO on climate change in West Africa.

Lisa interacts with local communities to add their traditional knowledge into scientific research. Lisa created digital maps based on hand-drawn maps and local narratives to better explain local environmental changes.

Elisabeth Nébié

Lisa enjoys working with communities living in remote areas that are often difficult to access. She once spent 20 months with the Fulbé herders in Burkina Faso (West Africa) to document their innovative adaptation strategies to climate change.



Elisabeth Nébié

Learn more: https://iri.columbia.edu/contact/staff-directory/ilboudo-nebie-elisabeth/

Nicole Davi

Nicole (Nikki) Davi is a tree ring expert who uses tree-ring records to understand climate variability and extremes over the past 2000 years. Her regions of interest are Mongolia, Southeast Asia, and Alaska.

Nikki's research focuses on developing and interpreting high-resolution paleoclimatic records in order to further our understanding of past climate change.

Nicole Davi

Nikki also works to improve science literacy for undergraduate and K-12 students. She leads and develops educational programs that tap into the excitement of field expeditions while introducing students to groundbreaking tree-ring studies that have important societal impact.

Nicole Davi

Learn more about Nikki: https://www.ldeo.columbia.edu/user/ndavi

Arianna Varuolo-Clarke

Arianna is a graduate student who studies the atmospheric and oceanic drivers of hydroclimate variability over South America. She seeks to understand changes in precipitation extremes within the context of climate reconstructions of the past.

Arianna graduated from Northern Vermont University – Lyndon with a B.S. in atmospheric science, and a M.S. from Stony Brook University.

Arianna Varuolo-Clarke

Arianna's fear of thunderstorms as a child blossomed into curiosity, and after watching hours of the Weather Channel with her grandfather, she fell in love with the weather! In college she realized she could study atmospheric science while also tapping into her "tree-hugging" ways!

Arianna Varuolo-Clarke

Learn more about Arianna's work at:
https://eesc.columbia.edu/student/arianna-varuolo-clark

Alessandra Giannini

Alessandra (Ale) is a climate scientist. She is best known for research that conclusively demonstrated that the persistent drought that affected the Sahel, the semi-arid southern edge of the Sahara desert, in the 1970s-80s was caused by changes in the surface temperature of the global oceans.

Ale's research challenged the widely held belief that local populations were responsible for environmental disaster.

Alessandra Giannini

Ale considers travel to be a fun perk of her job and has traveled to Ivory Coast, Senegal, Niger, France, and Spain! As an expert on climate science Ale earned a Macron grant to Make Our Planet Great Again, where she was selected from more than 1,800 applicants!

Alessandra Giannini

Pic: Wikipedia

Learn more about Alessandra's work at:
https://iri.columbia.edu/contact/staff-directory/alessandra-giannini/

Maayan Yehudai

Maayan is a graduate student who is working on reconstructing ocean currents from the past million years and on the history and formation of carbonate banks, such as the Bahamas.

Maayan graduated from The Hebrew University, Jerusalem, Israel with an Masters degree in oceanography and a Bachelors from Ben-Gurion University, Beer-Sheva, Israel in geology.

Maayan Yehudai

Maayan was curious about the Earth since she was a child, and has hiked in various places around the world. When visiting the US desert, she became fascinated with fossils and rocks and decided to study geology. She started learning about oceans and their history, and was hooked!

Maayan Yehudai

Learn more about Maayan at: https://www.ldeo.columbia.edu/user/myehudai

Elizabeth Case

Elizabeth is a graduate student who studies how glaciers form and flow using tools like radar to peer into the ice. She was drawn to glaciology for its gorgeous remote landscapes, and because glaciers change on human timescales.

Along with science, she is an avid educator and adventurer, working as a teacher on the Juneau Icefield Research Program and leading bicycle tours to bring science to everyone.

Elizabeth Case

Elizabeth didn't always know what she wanted to do and tried various things, including working as a science journalist in California. Her advice: keep trying things out until something feels right. Fun fact: Elizabeth spent 3 months biking from San Francisco to NYC!

Elizabeth Case

Learn more about Elizabeth: https://eesc.columbia.edu/student/elizabeth-case

"I love what I do because my work is a puzzle, it's important to society, and I get to travel to some of the most beautiful places on earth.

What places, problems and ecosystems inspire YOU?"

~ Elizabeth Case

Graduate Student

Indrani Das

Indrani studies ice surface and atmosphere interactions on ice sheets and mountain glaciers. She has a background in glaciology, cryospheric science and atmospheric physics.

Indrani's current passion is to use radar observations to quantify long-term accumulation history and flow dynamics of large ice sheets.

Indrani Das

Indrani loves working on ice, and was excited to work in the Himalayas, Greenland, Alaska, and Antarctica. She taught herself to ski, climb, and survive at temperatures below –40F! Her career as a scientist has been an adventure, and now she helps others to explore the cryosphere.

Indrani Das

Learn more about Indrani's work at: http://indranidas.info/

Sidney Hemming

Sidney (Sid) is a geologist who uses the record from sediments and sedimentary rocks to document aspects of the Earth's history.

Sid is the first woman Chair of the Dept. of Earth and Environmental Sciences. She has an active program of applying radiogenic isotopes for tracing the sources of sediments with the goal of understanding Quaternary and earlier climate changes.

Sidney Hemming

Sid has always loved geology, following her dad's enthusiasm. As a child, Sid enjoyed collecting fossils and rocks with her siblings. Sid travels widely and has been to exciting places on every continent!

Sidney Hemming

Learn more about Sid's work at: https://www.ldeo.columbia.edu/user/sidney

Sarah Ramdeen

Sarah uses her experience as a geologist to support her work studying *Information Seeking Behavior* as an information scientist.

Sarah used qualitative research methods to study how scientists search for physical samples and their associated data. Sarah wants to help scientists do better science. Improved access to existing scientific samples save scientists time and resources.

Sarah Ramdeen

Sarah researches scientific practices and workflows to develop best practices and infrastructure for managing physical sample metadata. Her work on these systems support physical samples in being FAIR – Findable and Accessible, with Interoperable metadata, that are also Re-usable.

Sarah Ramdeen

Learn more about Sarah: www.ldeo.columbia.edu/sarah-ramdeen

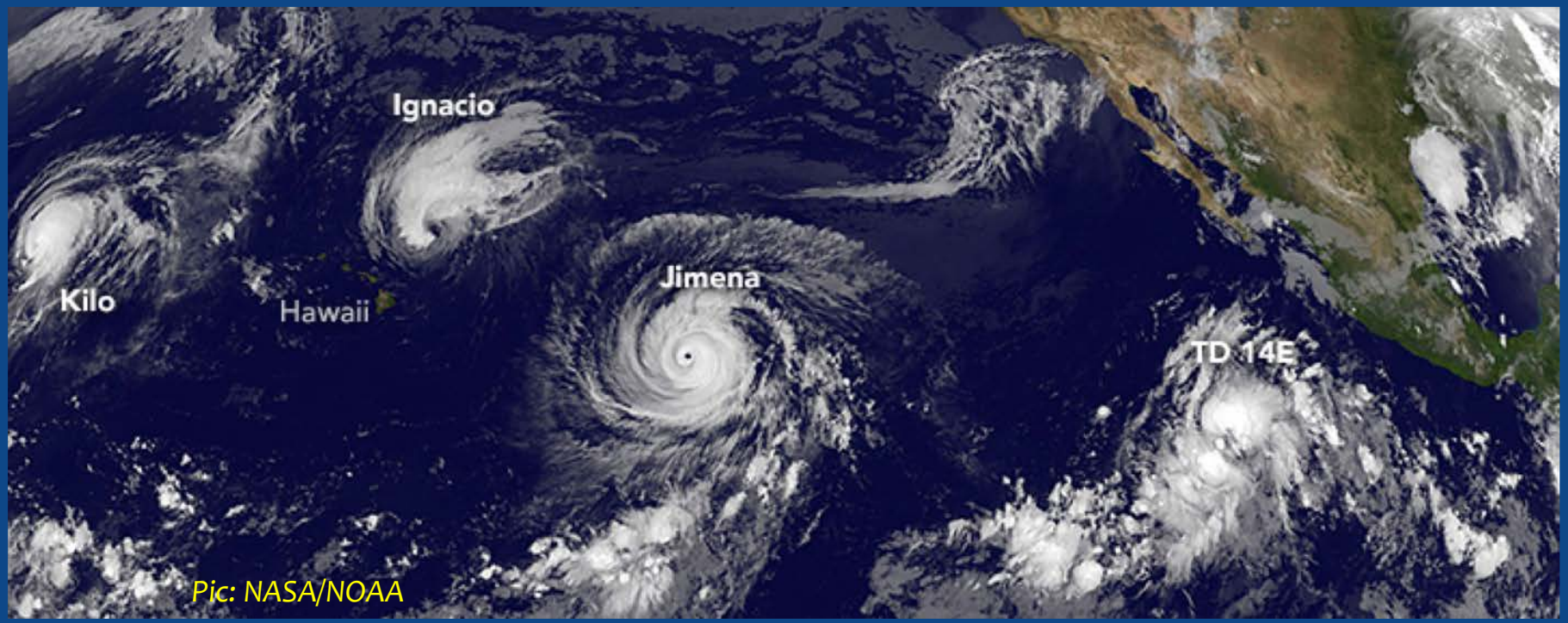
Lisa Goddard

Lisa's interest in math and science led her to research climate variability and prediction. This started in graduate school with the study of El Nino. That was in the 1990s when El Nino prediction was very new and climate prediction was experimental.

The potential to make that science meaningful to real-world decisions and vulnerable populations was a tremendous motivation for Lisa to stay in this field.

Lisa Goddard

Lisa is the first woman Director of IRI, and a globally recognized expert on El Niño and La Niña, decadal prediction and near-term climate change. In addition, Lisa sits on the Board of Atmospheric Sciences and Climate of the U.S. National Academies of Science.



Pic: NASA/NOAA

Lisa Goddard

Pic: Pixnio

Learn more about Lisa: https://iri.columbia.edu/contact/staff-directory/lisa-goddard/

WOMEN IN SCIENCE

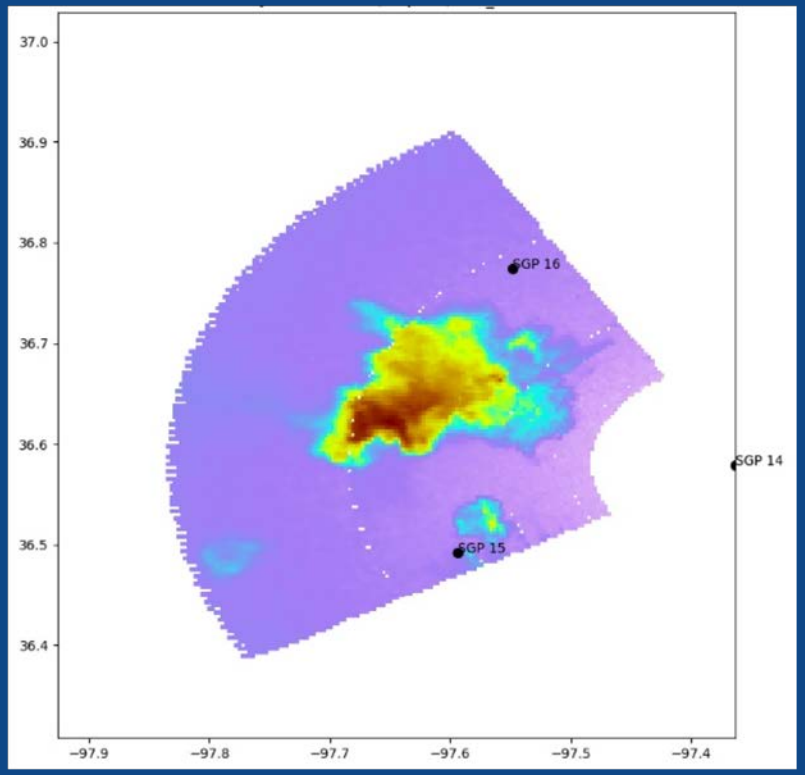
Sara Lytle

Sara is a graduate student who works on radar. Using rapid radar scans, she seeks to understand the life cycle of a convection storm, i.e. what goes on inside thunderstorm clouds.

Sara uses a Dept. of Energy X-Band Scanning Precipitation Radar to see a slice and a 3-D rendering of the convective updrafts that make up a storm and the rising air that makes up the duration of the storm.

Sara Lytle

Sara grew up in rural Ohio, her roots half Appalachia and half Rust Belt, in a school with poor STEM funding and little open mindedness about LGBTQ students. She went abroad to study political science but fell in love with the hard sciences when she came to Columbia.



Sara Lytle

Learn more about Sara: https://www.linkedin.com/in/sara-lytle-a7148816a/

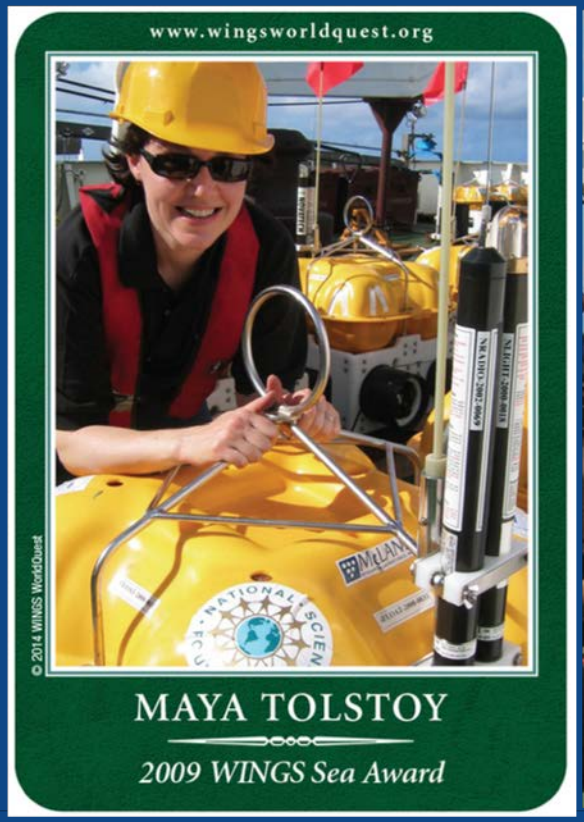
Maya Tolstoy

Maya is a leading marine geophysicist specializing in seafloor earthquakes and volcanoes. She has led 18 research expeditions at sea. Maya was part of the leadership team that implemented the largest ever community marine seismology experiment – the Cascadia Initiative.

Maya received the Wings Worldquest Sea Award honoring women in exploration and was a finalist for NASA's Astronaut selection.

Maya Tolstoy

Maya is the first woman Interim Executive Vice President of the Faculty for Arts & Sciences, where she oversees 5 schools and more than 800 faculty! Fun fact: Maya has worked with film-maker James Cameron on the IMAX documentary Aliens of the Deep.



Maya Tolstoy

Learn more about Maya: www.ldeo.columbia.edu/~tolstoy/

Julia Tejada

Julia is a paleontologist who uses the chemical composition of mammalian bones and teeth to understand how Amazonia, Earth's most biodiverse place for mammals, changed through time.

Julia works with zoo animals, where she tracks the fidelity with which diets get recorded in animals' tissues. This is very important to accurately reconstruct diets and ecosystems from fossils. She studies sloths to discover interesting digestive physiology patterns and its relationship to stable isotope incorporation into tissues.

Julia Tejada

Julia enjoys doing fieldwork and has active projects in the coastal deserts of Peru and western Amazonia. Julia is also the first woman vertebrate paleontologist in Peru, her country of origin!

Julia Tejada

Learn more about Julia: https://eesc.columbia.edu/student/julia-tejada-lara

Rosanne D'Arrigo

Rosanne's research focuses on tree rings, and is dedicated to understanding past and present climate and environmental history using tree rings.

Rosanne uses this information to piece together parts of the Earth's history. Tree rings shed light on the age of the tree and the local climatic conditions experienced in its lifetime.

Rosanne D'Arrigo

Rosanne is the first woman Associate Director (head) of our Biology and Paleo Environment Division, and was recently named an AGU Fellow. She has traveled to Mongolia, Madagascar, Java, Bali, Sumatra, Patagonia, and many others!

Pic: PBS

Pic: NASA

Rosanne D'Arrigo

Learn more about Rosanne at: https://www.ldeo.columbia.edu/user/druidrd

Michelle Lee

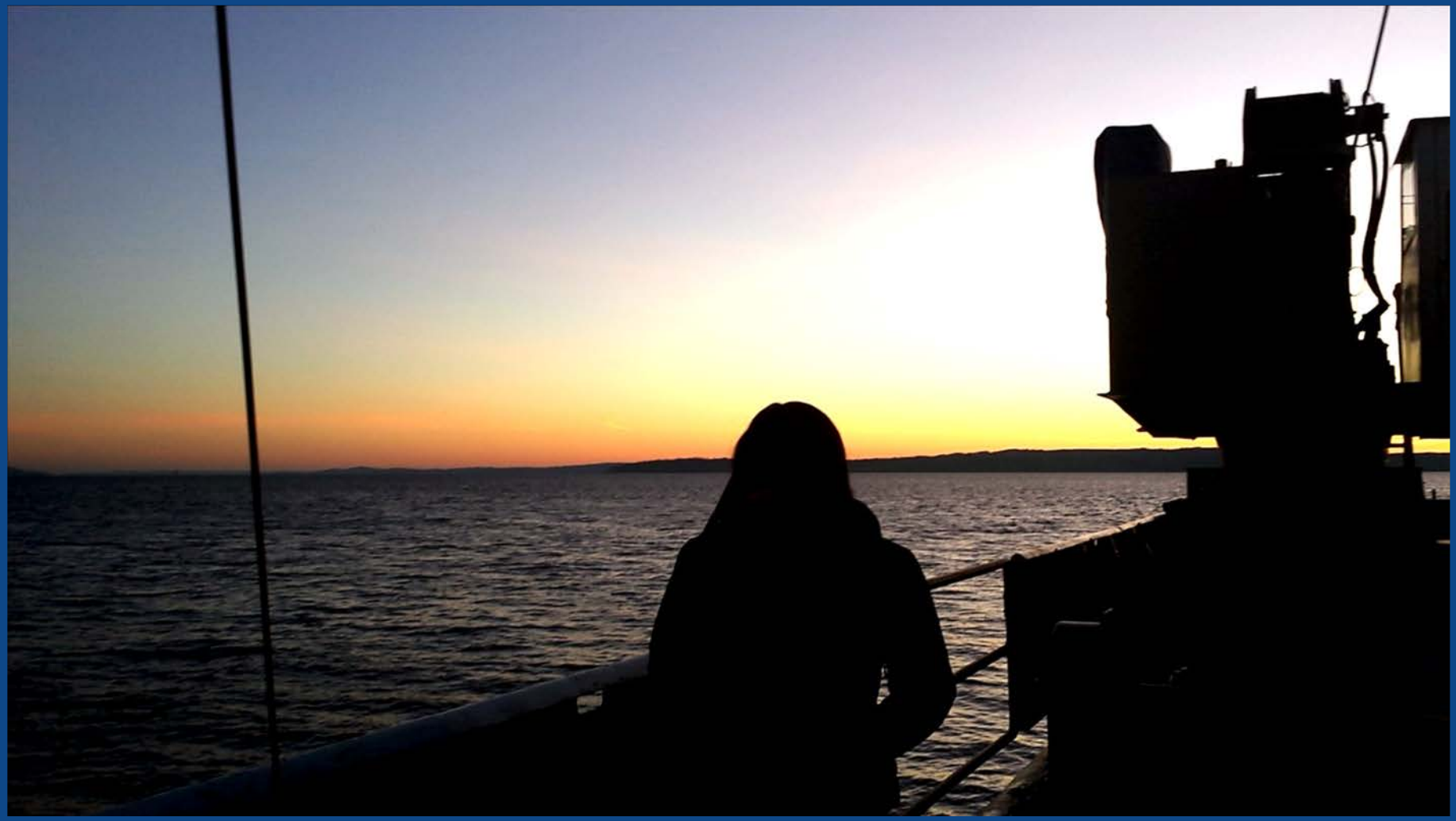
Michelle is a graduate student who uses marine seismic data to study volcanic systems on the seafloor. Her current research is focused on understanding the magma distribution beneath Axial Seamount, an underwater volcano located off the coast of Washington and Oregon.

Michelle graduated from University of Washington with a B.S. in Oceanography

Michelle Lee

One of Michelle's favorite aspects of studying the ocean is the opportunities to do research at sea. Since her first research cruise off the coast of Washington state during her first year of undergrad, Michelle has fallen in love with the adventures and experiences of "going to sea"!

Michelle Lee



Learn more about Michelle: https://eesc.columbia.edu/student/michelle-lee

Suzanne Carbotte

Suzanne is a seagoing geophysicist who uses marine seismic techniques to peer beneath the seafloor. Her expertise lies in the study of magma chambers beneath underwater volcanoes where the earth's ocean crust is formed, how this crust changes as it ages, leading to earthquakes and tsunamis.

Suzanne's most recent work is focused on the Cascadia subduction zone.

Suzanne Carbotte

As a student Suzanne participated in a science cruise off Vancouver Island and after that she was hooked. The adventure of exploration and the romance of "going to sea" are exciting to her every time!

Suzanne Carbotte

Learn more about Suzanne: https://www.ldeo.columbia.edu/user/carbotte

WOMEN IN SCIENCE

Sophie Hines

Sophie is a paleoceanographer. She studies the ocean and how its circulation impacts global climate. In addition to ocean currents at the surface there are currents that flow from the surface to the deep ocean and back. These deep currents take a very long time (about 1000 years!) and are very important for climate.

Sophie's particular interest is in glacial cycles (or ice ages) and she seeks to understand what the ocean's role was in these global climate shifts.

Sophie Hines

When Sophie isn't in lab or at sea, she loves to spend time in the woods going on hikes with her dog. As a child, Sophie spent a lot of time outside in the wilderness and that interested her in climate change.

Sophie Hines

Learn more about Sophie at: http://www.sophiakvhines.com/

WOMEN IN SCIENCE

Julie Oppenheimer

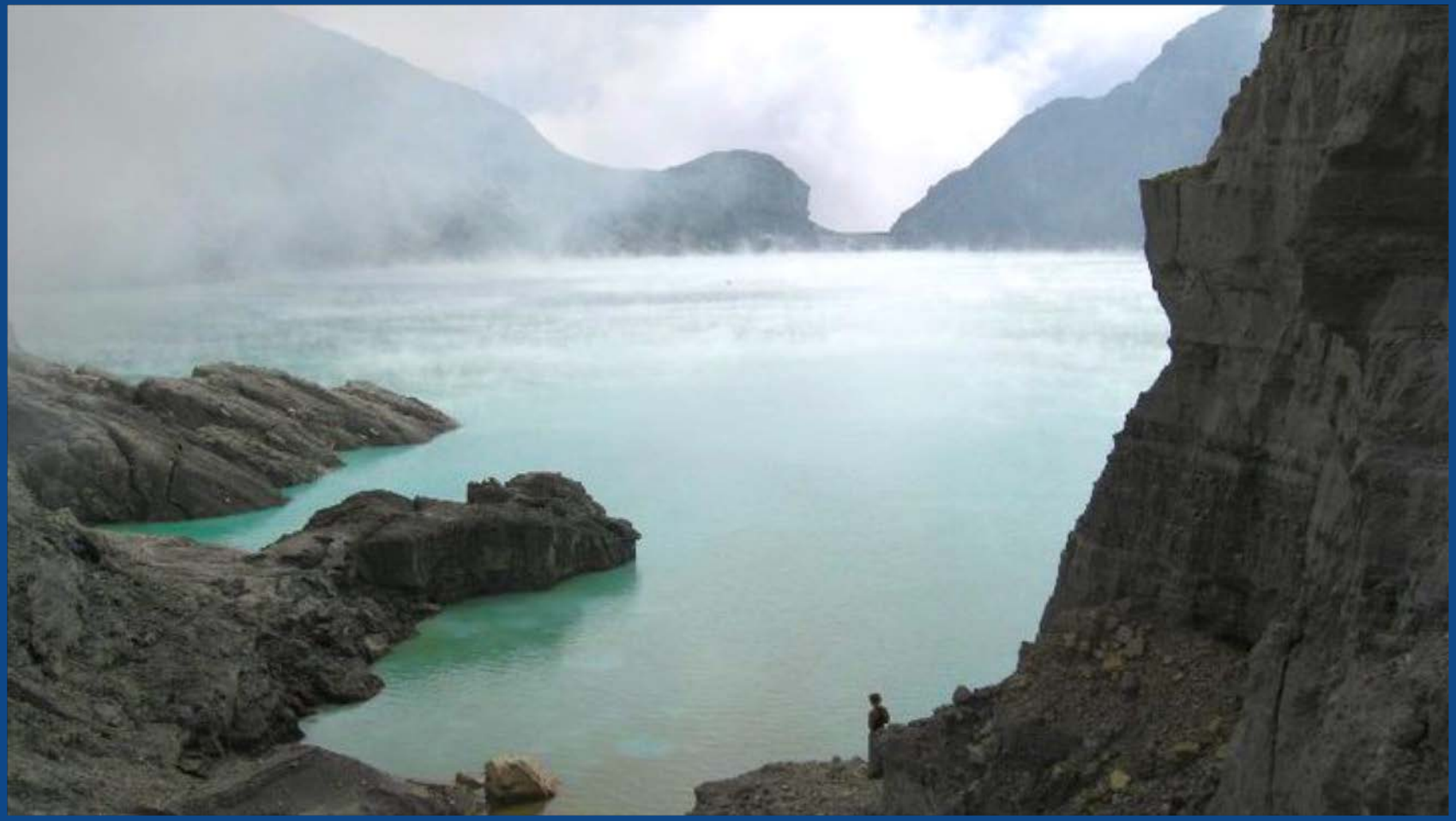
Julie is a physical volcanologist who studies how magma and lava flow. She creates "fake magmas" by mixing common household products that behave like real magmas.

Magmas contain liquid melt, crystals, and gas bubbles. To simulate magmas in the lab, Julie mixes materials like corn syrup, glass beads, and air bubbles, and then studies how they interact with each other!

Julie Oppenheimer

After her undergrad, Julie didn't know what she wanted to do next. She knew she wanted to work with natural hazards, and interned at a local earth observatory in Brussels, and volunteered for a research expedition on a volcano in Indonesia. That's where she fell in love with volcanology!

Julie Oppenheimer



Learn more about Julie: https://julieoppenheimer.wixsite.com/julieoppenheimer

WOMEN IN SCIENCE

Jennifer Middleton

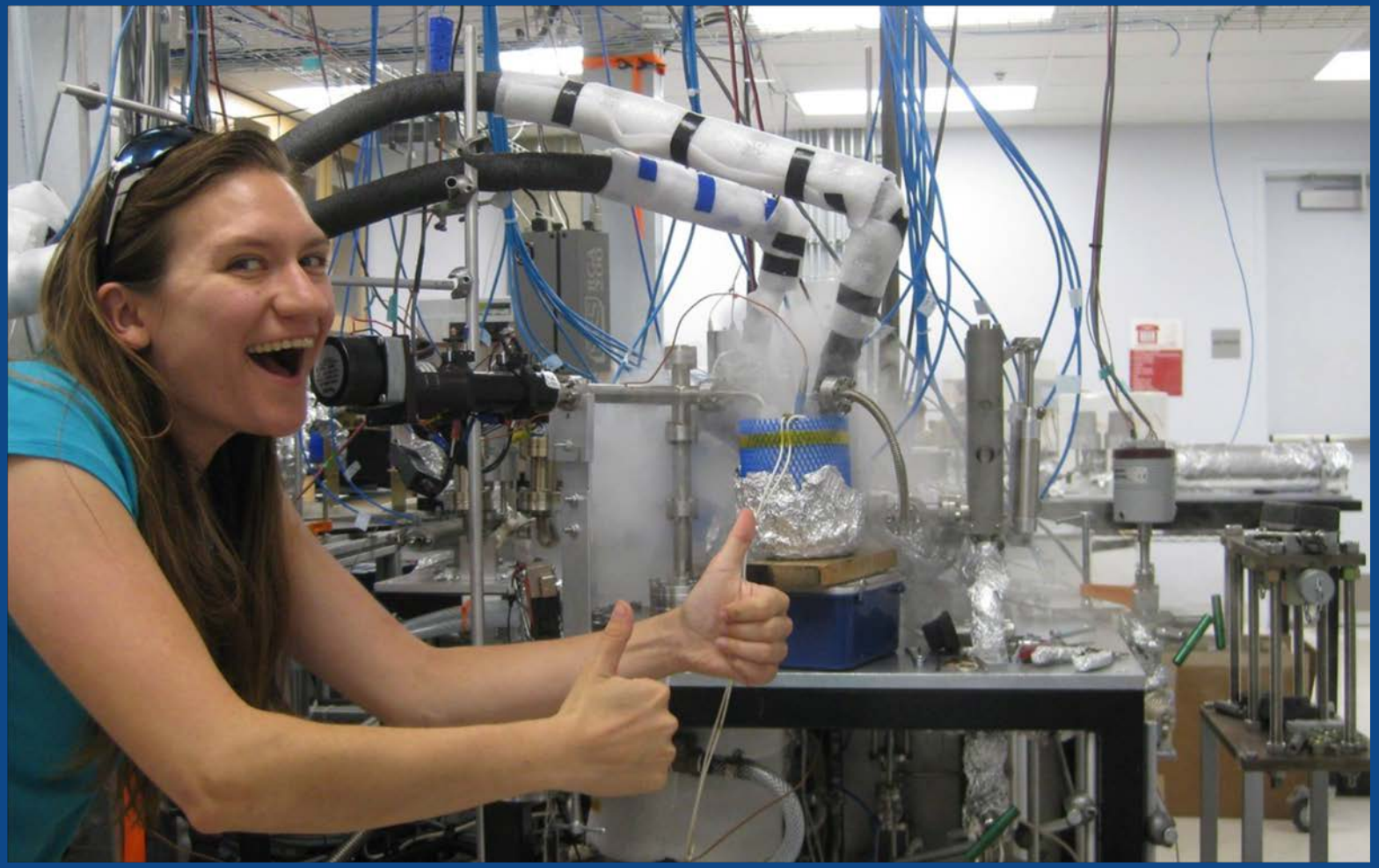
Jennifer (Jenny) is a geochemist who studies paleoclimate. She uses the chemical composition of rocks and mud from the seafloor to study the climate history of our oceans and ice sheets.

Jenny combines lab work, field work, and shipboard expeditions to generate the data she needs to investigate how Earth's temperature and climate vary through time.

Jennifer Middleton

Jenny enjoys being outdoors and working with her hands, and learning how the Earth works. She also enjoys using liquid nitrogen which she finds a lot of fun!

Jennifer Middleton



Learn more about Jenny: https://www.ldeo.columbia.edu/user/jennym

"I like geoscience because I like working with my hands, being outside, and learning how the Earth works. Plus, I get to use liquid nitrogen in the lab and that is super fun!"

~ Jennifer (Jenny) Middleton
Postdoctoral Scientist

Mingfang Ting

Mingfang is an atmospheric scientist. Her expertise lies in the impact of global climate change on regional scales in terms of atmospheric stationary waves and precipitation extremes; and the dynamics of naturally occurring and anthropogenic climate change.

Mingfang also leads educational programs relating to climate and society.

Mingfang Ting

Mingfang is the first woman Associate Director (head) of our Ocean and Climate Physics Division. Her love for math and physics led her to atmospheric science. Her work has taken her to China, Norway, Denmark, Italy, Mexico, France, Australia and others!

Pic: telegraph.co.uk

Mingfang Ting

Learn more about Mingfang's work: https://www.ldeo.columbia.edu/user/ting

Naomi Saunders

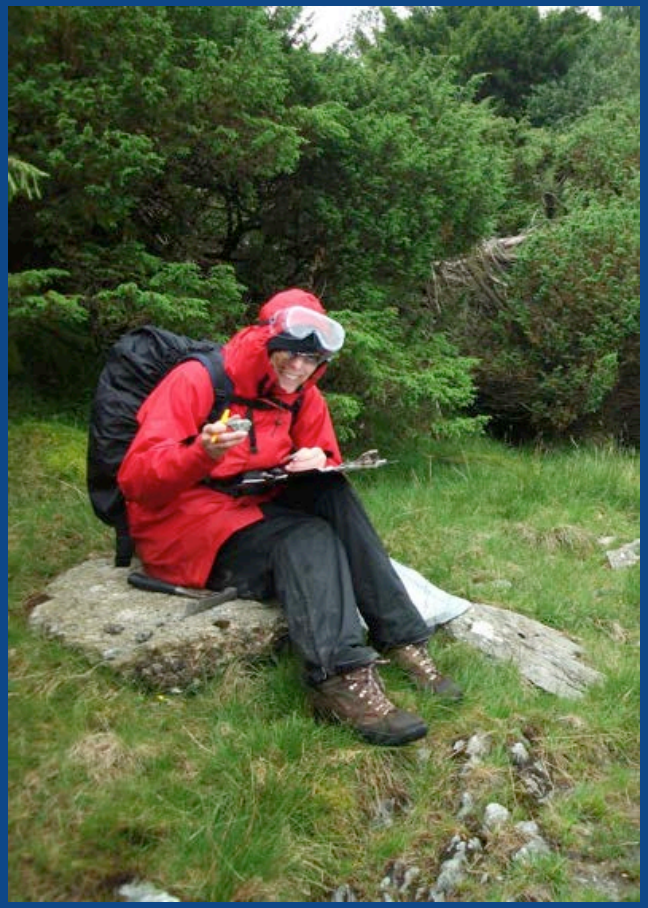
Naomi is an isotope geochemist. She looks at the chemistry of rocks, through the ratios of isotopes preserved within them. She specializes in Nickel isotopes in hard rocks, from deep in the Earth or the surface of the Moon.

These techniques that Naomi works on tell us about formation processes of the Moon and Earth, and modifying processes that occur within the Earth.

Naomi Saunders

Naomi is new to New York, having recently arrived from Oxford. She works in the lab and on collected data, entailing long days doing chemistry to remove everything that is not Nickel from the rock sample in a clean lab. Then she spends time measuring the amounts of the different isotopes of Nickel in the rock sample on a mass spectrometer.

Naomi Saunders



Learn more about Naomi's work: https://www.ldeo.columbia.edu/naomi-saunders

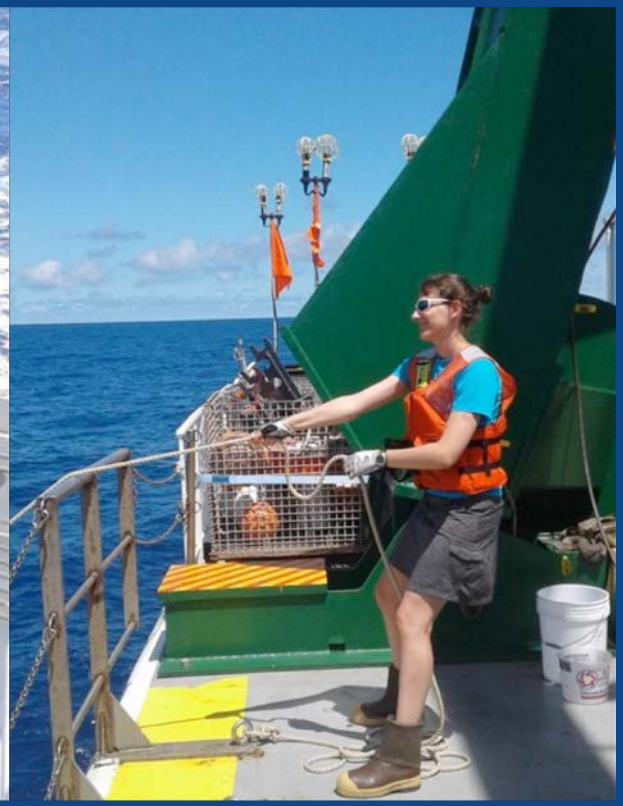
Sonya Dyhrman

Sonya's expertise lies in how marine microbes like phytoplankton interact with their geochemical environment. She uses molecular level tools to study the intersection of microbial physiology and biogeochemistry.

Sonya's work often uses model cultures to understand field operations made on research cruises spanning the globe from polar to tropical systems.

Sonya Dyhrman

Sonya has always loved the ocean and was drawn to the geosciences so she could study the ocean. She has traveled widely on work – to Antarctica, Easter Island, Barbados, Hawaii, Chile, Uruguay, and others. She has even crossed the Equator on a ship!



Sonya Dyhrman

Learn more about Sonya: www.ldeo.columbia.edu/user/sdyhrman

Lucy Profeta

Lucia is a data manager and a geochemist. She curates the EarthChem Library data repository, which is a data repository that archives, publishes and makes accessible data and other digital content from geoscience research.

As a geoinformaticist she works to ensure that data outlives its creators and is Findable, Accessible, Interoperable and Reusable (FAIR).

Lucy Profeta

Lucy is a big proponent of Earth Science outreach and loves engaging in outdoor activities. She believes it is of the outmost importance that future generations understand and engage with our everchanging world.

Lucy Profeta

Learn more about Lucy's work: http://www.earthchem.org

Carol Knudson

Carol Knudson works on water quality on a project with environmental advocacy group Riverkeeper. Carol's group samples 74 stations over 155 miles on the Hudson River from the Gowanus Canal to the confluence of the Mohawk river at Waterford, NY.

Carol tests for Enterocoocus, a sewage indicating bacteria, using an EPA approved method for determining safe exposure for recreational water use.

Carol Knudson

Carol also measures temperature, salinity, oxygen, chlorophyll, pH and turbidity. Carol has lived near the Hudson river her entire life and is very grateful to be able to protect and care for it through her w

Pic: Riverkeeper

Carol Knudson

Pic: Riverkeeper

Learn more about Carol: https://www.ldeo.columbia.edu/user/knudson

Naomi Manahan

Naomi works in microbial biogeochemistry. Her work involves thousands of water samples from the ocean off the Western Antarctic Peninsula. Naomi analyzes the samples on several different types of analytical instruments.

Naomi's research contributes to our understanding of changing microbial populations, nutrients available to lower levels of the Antarctic food web, carbon and nitrogen flux in the ocean, and ocean acidification.

Naomi Manahan

Naomi was drawn to oceanography after her first visit to an aquarium at age 12. She enjoys living and working on a ship in Antarctica, something that few get to experience, and finds that the scenery never gets old!

Naomi Manahan

Learn more about Naomi: https://www.ldeo.columbia.edu/user/nshelton

Arlene Fiore

Arlene is an atmospheric scientist whose expertise lies in studying how anthropogenic and natural pollutant emissions influence atmospheric chemistry, climate, and air pollution on regional to global scales, and of the processes governing their interactions.

Arlene received the Excellence in Mentoring Award, and is passionate about the cause of women in science.

Arlene Fiore

In high school, Arlene had an excellent Earth science teacher who had a blow-up planetarium, and introduced her to rocks and minerals. Even though she started out as an engineer in college, she found Earth science so fascinating that she switched fields!

Pic: NASA

Arlene Fiore

Pic: National Geographic

Learn more about Arlene's work: https://atmoschem.ldeo.columbia.edu/

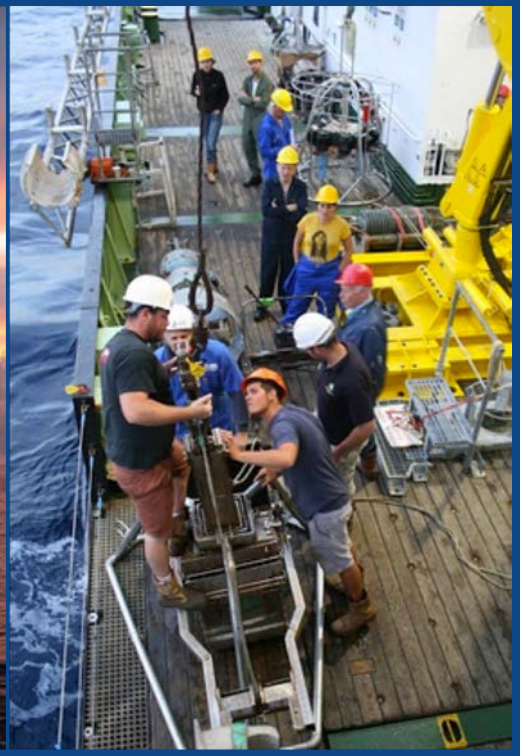
Julia Gottschalk

Julia studies the role of the ocean in the past climate system. Understanding how the ocean influences atmospheric CO_2 concentrations, global temperatures or the stability of ice sheets requires studying how these components have interacted in the past.

Julia is working on these aspects by using marine sediment cores that are important climate archives from the seafloor.

Julia Gottschalk

Julia is intrigued by the ocean and the secrets it holds and seeks to uncover those secrets. Her heart "beats for the ocean." She has sailed the ocean many times, braving sea sickness and storms! Julia enjoys going to corners of the Earth that very few people go to.



Julia Gottschalk

Learn more about Julia at: https://www.ldeo.columbia.edu/user/jgottsch

Xiaojun Yuan

Xiaojun is a physical oceanographer whose research focuses on polar sea ice variability and atmosphere-ocean-sea ice interaction in both the Antarctic and Arctic.

Xiaojun has conducted oceanography field surveys in the Southern Ocean and Antarctic waters to study the polar ocean's role in the global climate system.

Xiaojun Yuan

Xiaojun also investigates how climate signals in the tropics influence polar regions. She is active in education and outreach, and teaches a course "New Frontier in Earth Science" to high school students.

Xiaojun Yuan

Learn more about Xiaojun's work: https://www.ldeo.columbia.edu/~xyuan

Alexandra Karambelas

Alexandra (Alex) works on cross-cutting, interdisciplinary projects cutting across energy sector emissions, outdoor air quality, and human health implications with a focus on India.

Alex also encourages every scientist to communicate with their congressperson and senators about the value his or her science adds to society.

Alexandra Karambelas

Alex's work utilizes atmospheric chemistry transport models to understand present and "what if" conditions, examining emissions mitigation scenarios for improvements to air quality and human health.

Pic: Huffington Post India

Alexandra Karambelas

Learn more about Alex: www.ldeo.columbia.edu/alexandra-karambelas

Laurel Zaima

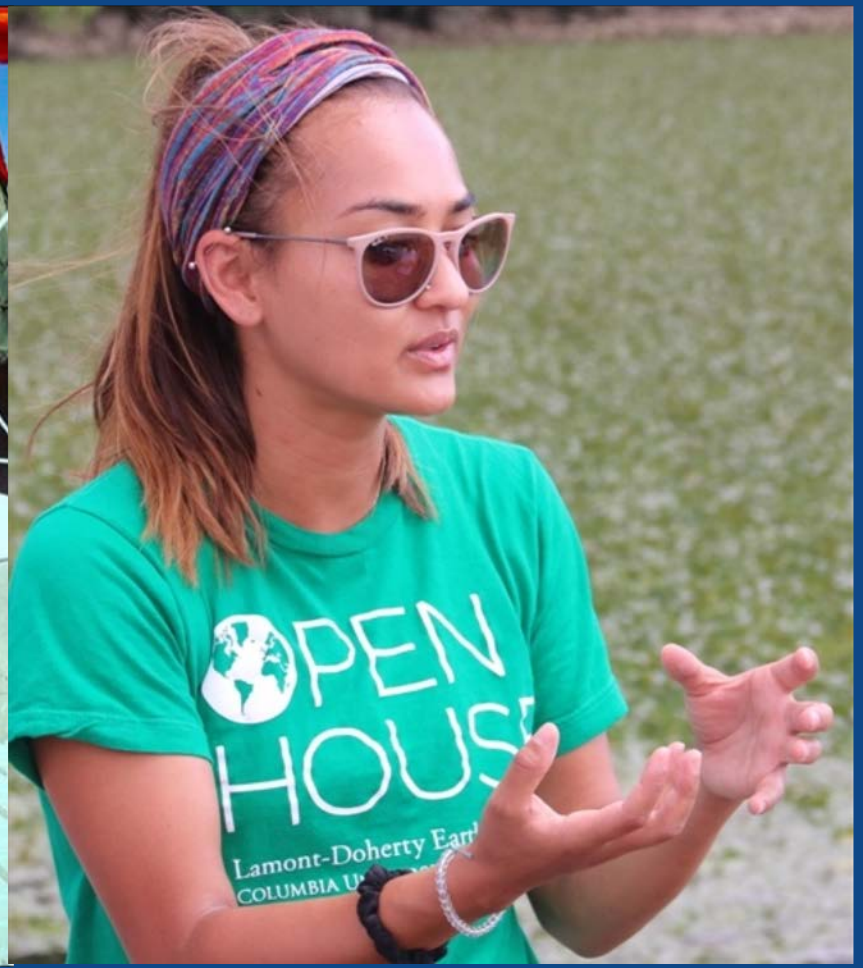
Laurel is a marine biologist and environmental educator. She works on education initiatives that communicate science research to the general public, K-12 and undergraduate school groups, and New York and New Jersey teachers. Her primary educational focus is on connecting the public to the Hudson River and local waterways.

Laurel also teaches about climate change and sea level rise with a strong emphasis on the changes occurring in the polar regions.

Laurel Zaima

Laurel has a passion for ocean conservation and marine biology. During her undergraduate years in Miami, Laurel concentrated on shark research & conservation and scientific public outreach. Laurel feels fortunate to directly impact people's lives and influence their daily decision making through her educational programming!

Laurel Zaima



Learn more about Laurel: https://blog.ldeo.columbia.edu/piermont/people/

Róisín Commane

Róisín is an atmospheric chemist who looks at trace gas exchange between the land and ocean surface and the atmosphere. She looks at trace gases emitted from both natural and human sources and carbon uptake and emission by ecosystems all over the world.

Róisín also looks at the processes driving the large emissions of carbon we've seen in Arctic permafrost during the recent warm winters.

Róisín Commane

Growing up on a farm in Ireland, Roisin always loved nature and the smells of the countryside. Róisín has traveled to places like California, Alaska, Hawaii, Fiji, American Samoa, New Zealand, Chile, Ascension, Brazil, Azores, Greenland measuring trace gases in the atmosphere.

Róisín Commane

Pic: Wikimedia Commons

Learn more about Róisín at: https://www.ldeo.columbia.edu/roisin-commane

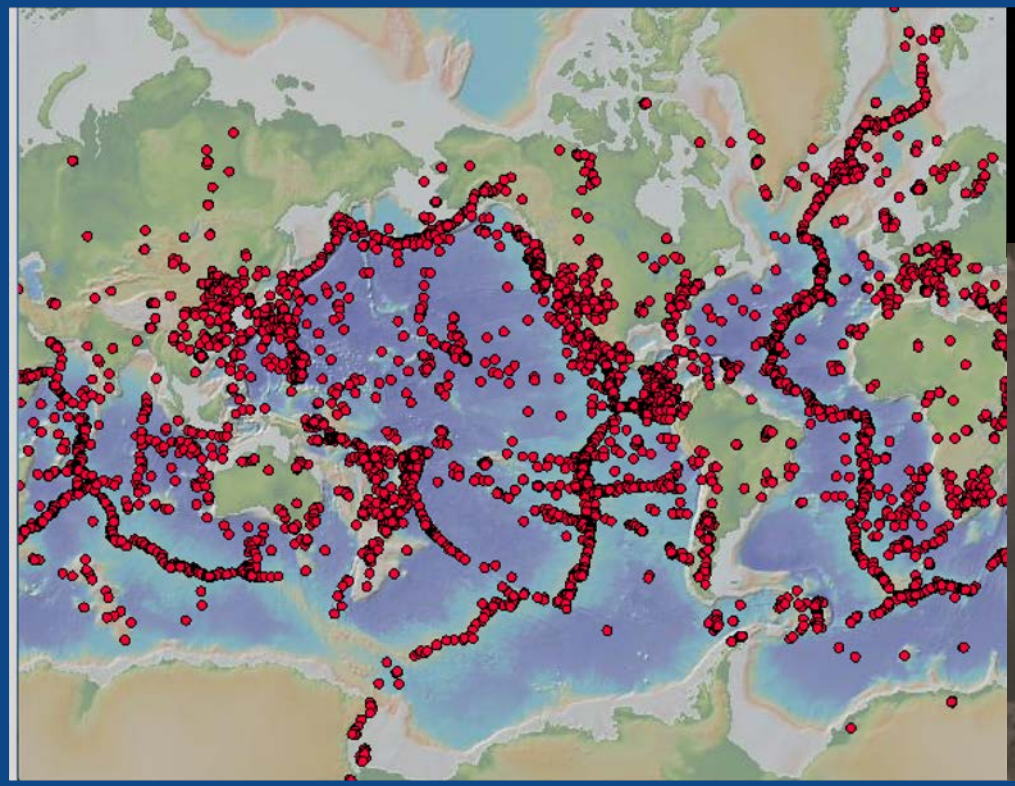
Annika Johansson

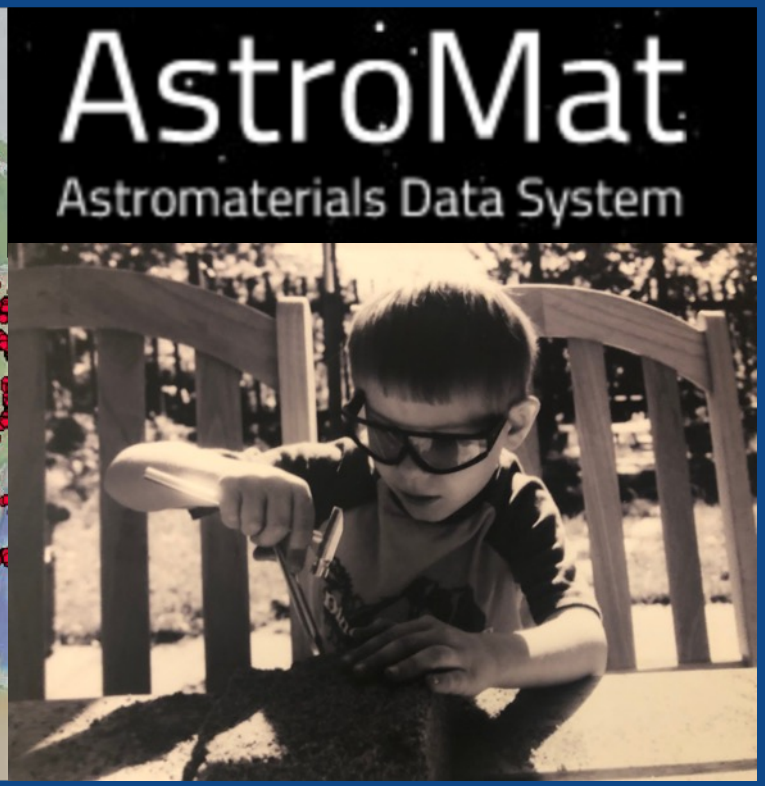
Annika is a Data Manager. She finds, archives, and curates data that other scientists publish. Her efforts makes it easy for researchers and teachers across the globe to find large amounts of high quality geochemical data with just a few clicks, sort of like when you go shopping on Ebay!

Annika's work helps scientists save a lot of time that they would have otherwise had to spend digging for information.

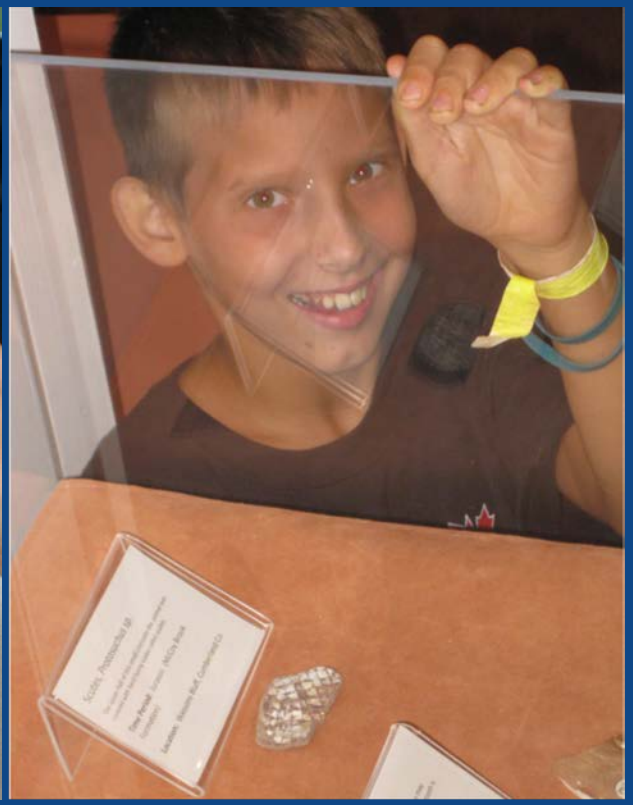
Annika Johansson

Right now Annika is very excited to start working on data from outside the Earth, including Lunar and other Astromaterials! Annika's kids have joined her in outdoors adventures of fossil hunting, hiking, and other fun since they were very little!





Annika Johansson



Learn more about Annika's work: https://www.ldeo.columbia.edu/user/annika

Donna Shillington

Donna is an expert in marine seismology. She uses active-source seismology with other geophysical and geological data to investigate deformation and magmatism at plate boundaries, including continental rifts and rifted margins, subduction zones, and transform boundaries.

Donna has worked on the Alaska subduction zone, the East African Rift, the Corinth Rift, the Marmara Sea, and others.

Donna Shillington

Donna was drawn to the Earth sciences to understand Earth processes that open oceans, build mountains, and shape our planet. Donna has traveled to places like Hawaii, Alaska, East Africa, Greece, and in the US her home state of Georgia.

Pic: Wikimedia Commons

Pic: NSF

Donna Shillington

Learn more about Donna: www.ldeo.columbia.edu/~djs/donna_ldeo/home.html

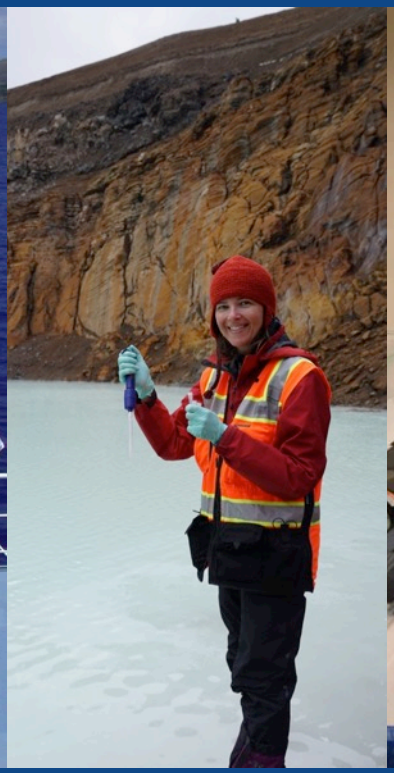
Solange Duhamel

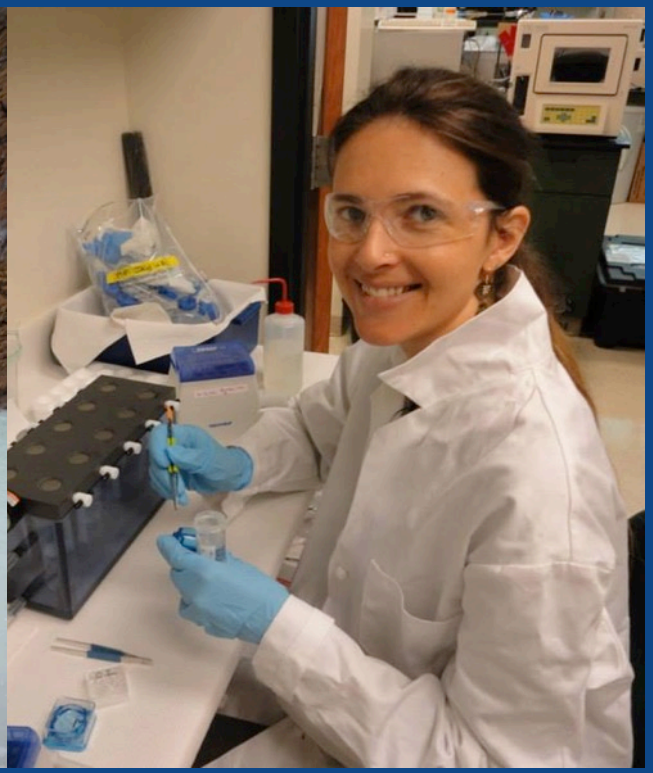
Solange is a marine microbiologist and biogeochemist. She studies the role of aquatic microbes in biogeochemical transformations and how microorganisms adapt to different environments.

She is particularly interested in the effects of climate and nutrient availability on the distribution, growth and productivity of tiny phytoplankton that produce a large fraction of the oxygen we breathe.

Solange Duhamel

Solange enjoys field work where she can study microorganisms in their natural environment. She has been working mainly in tropical and subtropical oceans but also in lakes, rivers, wetlands and even hot springs in Iceland!





Solange Duhamel

Learn more about Solange: http://solangeduhamel.wixsite.com/duhamellab

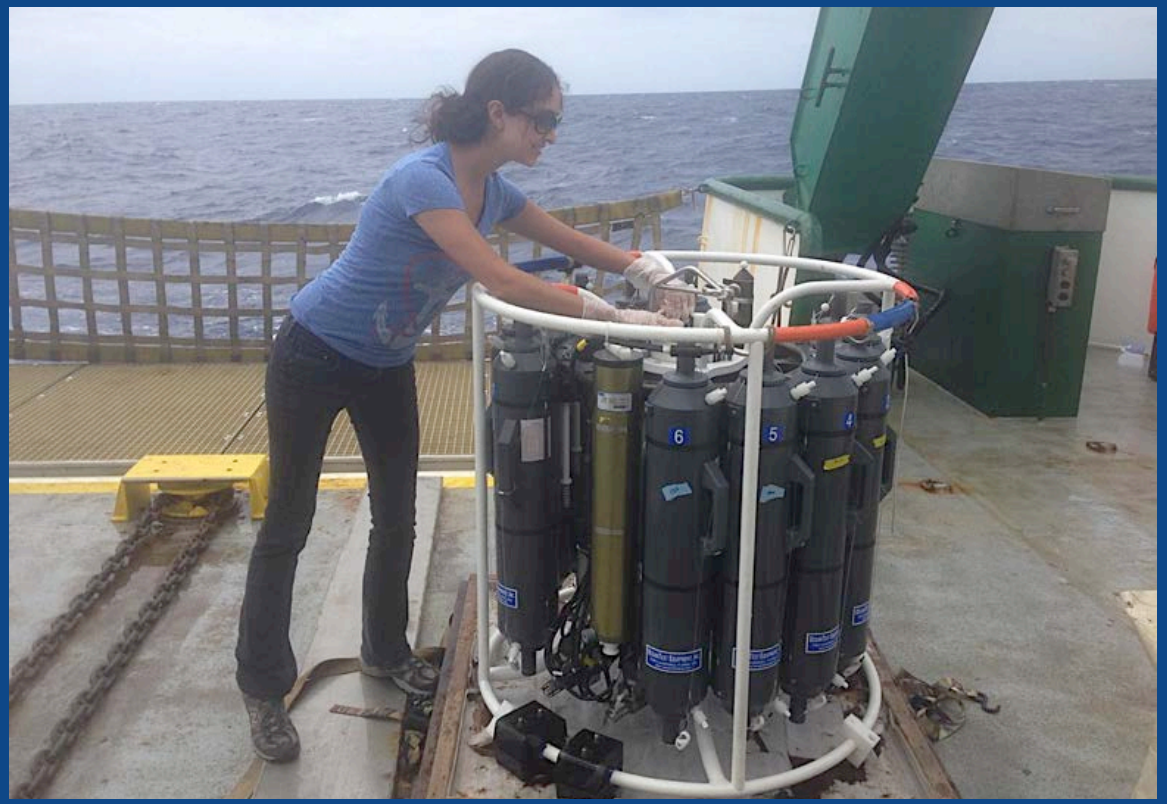
Paulina Pinedo-Gonzalez

Paulina is a chemical oceanographer who studies the links between trace metal distribution and primary productivity in the oceans.

Paulina's research focuses on generating new data on some biologically essential and anthropogenic metals in a wide variety of marine environments (North Pacific, Southern Ocean, Arctic Ocean) to investigate the physico-chemical and biological influences that interact to control metal biogeochemistry in the ocean.

Paulina Pinedo-Gonzalez

Paulina's passion for the oceans and her desire to gain a deep understanding of their plight led her to a career in marine science. She enjoys working on ships, where she gets to admire the beauty and vastness of the ocean, and with a little luck, some playful marine animals like whales and dolphins!



Paulina Pinedo-Gonzalez

Learn more about Paulina's work: https://www.ldeo.columbia.edu/user/papinedo

Mélody Braun

Mélody has a multidisciplinary background in Earth science, development and adaptation to climate change.

Mélody works with climate scientists, development practitioners and policy makers to design systemic and transdisciplinary climate services approaches to improve integration of climate information into decision making processes and increase resilience, with a particular focus on Bangladesh.

Mélody Braun

Mélody works on the design of weather insurance products for smallholder farmers as risk transfer mechanism to unlock productive opportunities and increase resilience. The approach combines remote sensing and participatory processes to include farmers in the design and validation of products.

Mélody Braun

Learn more: https://iri.columbia.edu/contact/staff-directory/melody-braun/

WOMEN IN SCIENCE

Margie Turrin

Margie is an ecologist, who works with scientists, educators, and students to study how impacts on the Hudson River can affect fish and other species. She teaches about the impacts of climate change and sea level rise.

Margie enjoys doing science outdoors in the field. She is responsible for thousands of Hudson Valley students experiencing field science, collecting their own data and sharing it with other students. She has focused heavily on promoting diversity in science.

Margie Turrin

Margie's love of field experiences launched her into a multi-year program where interdisciplinary faculty lived together on a research boat for a month each summer to study the Hudson River. Some of her favorite work experiences were in Greenland and Antarctica.

Margie Turrin

Learn more about Margie: https://blog.ldeo.columbia.edu/piermont/people/

Ludda Ludwig

Ludda is a graduate student studying ecosystem ecology. She studies climate change impacts on Arctic carbon cycling through wildfires and permafrost thaw, and coupled biogeochemical cycling at terrestrial-aquatic interfaces.

Ludda combines field ecology data and high-resolution remote sensing in statistical models to map small lakes and wetlands and scale carbon dioxide and methane emissions.

Ludda Ludwig

Ludda's appreciation of the Arctic began as a teenager from canoe trips on Arctic rivers in Canada. Now her field work takes me around the circumpolar Arctic, and she has explored Alaska and Siberia by motorboat, floatplane, helicopter, barge, and kayak (but not canoe)!

Ludda Ludwig

Learn more about Ludda: https://atmoscomp.ldeo.columbia.edu/people/ludda-ludwig

Maria Tzortziou

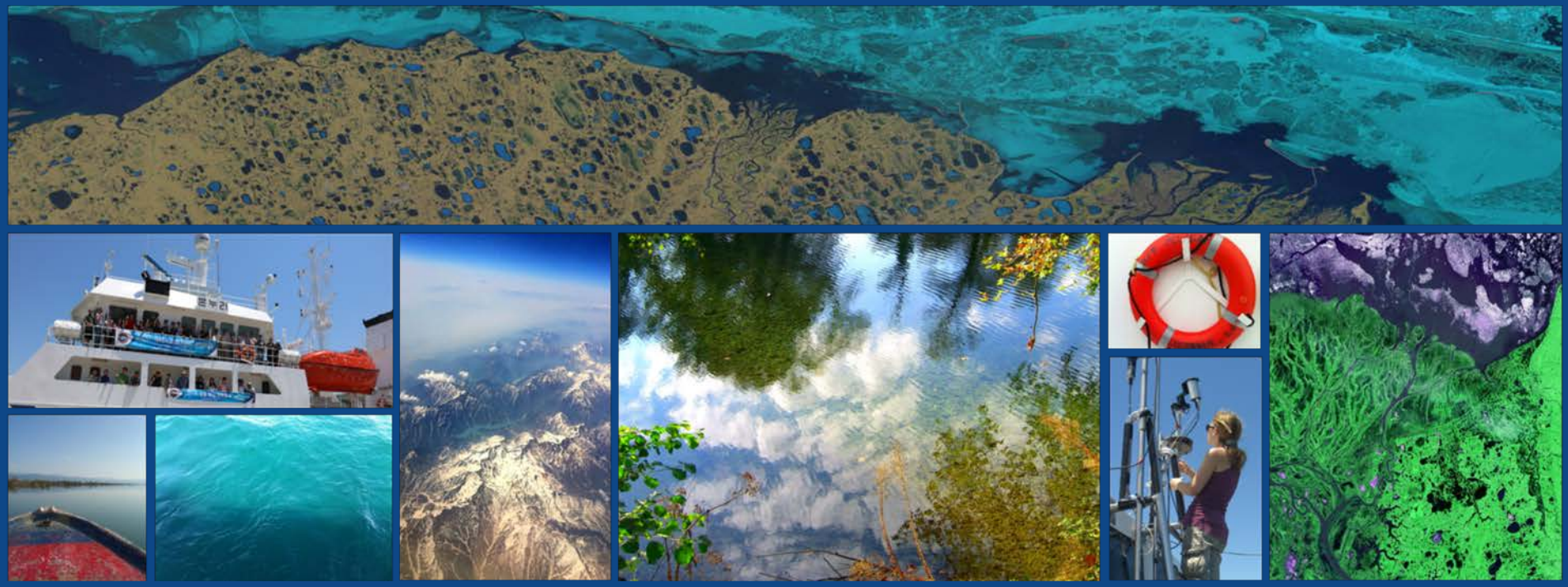
Maria is a physicist whose research integrates multidisciplinary datasets, satellite remote sensing observations, and ecosystem models to provide insights into the impacts of human and environmental pressures on biogeochemical cycles and ecological processes.

Maria is the Ocean Applications Lead for NASA's satellite mission PACE, on the Science Steering Committee for the Ocean Carbon Biogeochemistry Program, and on the Science Leadership Board of the North American Carbon Program.

Maria Tzortziou

Maria has led field campaigns across a range of environments, from the Yukon river delta and Arctic coastal ocean to coastlines in the Mediterranean to the Asian coastal megacities of Seoul and Busan. She has received two NASA Group Achievement Awards as member of the Science Team for NASA's DISCOVER-AQ and OWLETS airborne and shipborne campaigns.

Maria Tzortziou



Learn more about Maria's work: https://www.ldeo.columbia.edu/maria-tzortziou

Thank you!

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