ENVIRONMENTAL
STUDY ABROAD

FALL, SPRING, AND
SUMMER PROGRAMS

40 YEARS

THE SCHOOL FOR FIELD STUDIES

1980-2020

AUSTRALIA
BHUTAN
CAMBODIA
CHILE
COSTA RICA
KENYA
PANAMA
PERU
TANZANIA
TURKS & CAICOS ISLANDS

EXPLORE.FIELDSTUDIES.ORG

BIODIVERSITY CONSERVATION

The active management of the biosphere to ensure the survival of the maximum diversity of genes, species, and ecosystems in a region

CLIMATE CHANGE

Long-term global or regional changes in temperature, precipitation, and other measures of climate, particularly as a result of human activity

COMMUNITY RESOURCE MANAGEMENT

The collective governance of natural resources by a group of people, which aims to balance equitable, sustained access and environmental conservation goals

LAND USE CHANGE

The factors influencing human alterations to natural and built environments, as well as the environmental impacts of these changes

NATURAL RESOURCE & WATER MANAGEMENT

The strategic management of natural resources such as water, land, plants, and animals to maximize beneficial use for present and future generations

POLLUTION & WASTE MANAGEMENT

The systems and actions required for proper control of waste products and harmful byproducts in order to protect human and environmental health

READ MORE ABOUT OUR ENVIRONMENTAL RESEARCH AROUND THE WORLD AT: WWW.FIELDSTUDIES.ORG/ISSUES

ENVIRONMENTAL ETHICS & JUSTICE

The consideration of ethical and just treatment of all human and non-human stakeholders as part of sustainable development and environmental policymaking

ENVIRONMENTAL POLICY

A deliberate plan of action taken by a government or organization to address environmental issues such as climate change, wildlife conservation, and development

FISHERIES MANAGEMENT

The informed management of fishery resources for sustainable economic use and the preservation of healthy ecosystems

SUSTAINABLE LIVELIHOODS

Livelihood strategies that balance people's adaptation to environmental and societal changes with sustainable resource use

TOURISM IMPACTS

The environmental and socioeconomic impacts of tourist activity, especially in places of high biodiversity

ALL PROGRAMS

APPLY FOR FREE

TABLE OF CONTENTS

WHY SFS?

THE SFS EXPERIENCE

Nowhere else will you find a study abroad experience like The School for Field Studies – adventurous, invigorating, and fulfilling.

When you study abroad with SFS, you're contributing to a 40-year legacy of environmental research and stewardship that encompasses countries as diverse as Cambodia, Kenya, and Costa Rica. Our team of experienced research scientists will push you to get creative as you work to understand the critical environmental issues of our time. Get ready for muddy boots and dirt under your fingernails, because you will be out there *doing* science, not just talking about it in the classroom. And you won't be alone – you'll be joining a group of students who share your passion for creating a more sustainable future.

Our planet is home to an incredible diversity of life and depends on the next generation of environmental leaders to protect its future – will you be one of them?

A DIFFERENT KIND OF CLASSROOM

STUDY IN THE WORLD'S MOST DYNAMIC ECOSYSTEMS

Living in Australia's ancient rainforests, tracking elephants through the Serengeti, or diving among the vibrant coral reefs of the Turks and Caicos Islands, you will find yourself immersed in and captivated by the world's most incredible and complex environments.

As an SFS student, you'll become part of a global community, working to make a difference by better understanding and protecting these ecosystems. With the Amazon rainforest or the floating villages of Cambodia as your classroom, you'll experience the world in ways that aren't possible inside a lecture hall. So, join us in the field – and don't forget your binoculars!

WHO WE ARE

EXPERTS IN THE FIELD

Our faculty are skilled teachers, field researchers, and mentors. Their expertise spans many different fields including ecology, environmental policy, resource management, and socioeconomics.

A COLLABORATIVE COMMUNITY

We build long-term, collaborative relationships in the communities around our centers and have been rooted in some communities for nearly three decades. We develop our research plans based on the environmental issues they face. No matter which program you choose, you'll become part of the community through interactions with local staff on campus, cultural events, environmental education activities, research presentations, or even pickup soccer matches.

ENVIRONMENTAL LEADERS

Not only are you heading into the field with a group of ardent environmentalists, but you're joining a network of more than 18,000 alumni with careers in the private sector, government, academia, and environmental NGOs. You'll also work alongside SFS staff who are passionate about the environment and committed to making our world a better place.

WHAT WE DO

SFS STUDENTS *DO* SCIENCE

Our programs are hands-on, and students actively engage with the ecosystems they study. If we spend the morning discussing an article about the critical issues facing African elephants, we'll spend that afternoon in the field observing those elephants from meters away while collecting data on their resilience to climate change. Rather than the usual classroom lecture on the impacts of coffee farming, we visit Costa Rica's cloud forests to learn directly from farmers about how agriculture can support biodiversity. SFS students *do* science, while engaging in rigorous research about important environmental issues.

RELEVANT LOCAL RESEARCH

With 10 centers around the world, our research covers a spectrum of environmental issues. SFS programs provide the foundation for students to critically examine today's environmental issues in an international setting and articulate questions that reflect their complexity. The academics and research at each center are designed around the issues that are most critical to the local community and surrounding ecosystems – such as marine resource management in the Turks and Caicos Islands or community forestry in Bhutan.

WHERE WE WORK

LIVING OFF THE BEATEN PATH

SFS students, faculty, and staff live and work together at our 10 field stations around the world. Locations range from deep in the heart of the Australian rainforest to the tropical coastline of Panama, and each center offers its own distinct experience in the surrounding ecosystems and communities. These are not extravagant resort hotels, but then again, you'll be much more than a tourist. Regardless of where you go, you'll become part of a community and discover a lifestyle unlike anything you've ever experienced.

SAFETY IN REMOTE CORNERS OF THE WORLD

When we send a group of students into the field, their safety is our top priority. SFS is dedicated to providing comprehensive safety and risk management in all aspects of our programs. We work around the clock to mitigate risks without sacrificing the rugged and awe-inspiring nature of the SFS study abroad experience.

www.fieldstudies.org

RESEARCH AT SFS

BE PART OF SOMETHING GREATER

Through Directed Research, you will conduct hands-on field research in some of the world's most intricate and threatened ecosystems. Your work contributes to a crucial scientific effort to realize a more sustainable future.

THE WORK

HANDS-ON RESEARCH IN THE FIELD

At SFS, you're conducting research *in the field* – in incredible ecosystems and dynamic communities around the world. Whether you're surveying the glaciers of Patagonia or laying underwater transects in the Caribbean, you'll experience all the excitement and challenges of field data collection.

LEARNING PRACTICAL SKILLS

SFS will prepare you for graduate school, a career in STEM research or environmental policy, and wherever else your life takes you. From species identification and wildlife monitoring to GIS and stakeholder interviews, the skills you'll learn are practical, transferable, and invaluable.

THE PROJECT

EXPERIENCED RESEARCH MENTORS

Field research is complex and challenging – but with the mentorship of our experienced faculty, you'll have all the tools and support you need to be successful. Each student works directly with a faculty member throughout the entirety of the research process - from project design to completion.

YOUR CONTRIBUTION

Each SFS center has a strategic research focus which allows our work to expand beyond the scope of isolated projects. Your project is a critical piece of this larger puzzle – you'll design your research question within a framework, giving more context and value to your results.

THE IMPACT

BUILDING A BODY OF KNOWLEDGE

Building a comprehensive body of scientific knowledge is a key step toward a more sustainable future. You're joining scientists around the world working to understand our environment and how it is changing, and in some countries where we operate, you'll even collect baseline data – the first of its kind.

GIVING BACK TO THE COMMUNITY

SFS research is driven by our communities. Our neighbors share their stories, observations, and needs, and in return we provide valuable data to community leaders, local environmental groups, and government agencies, allowing them to make informed and sustainable policy decisions.

DIRECTED RESEARCH

WHAT	*Directed Research (SFS 4910) is a 4-credit course that gives you an introduction to conducting scientific research – developing a question, collecting and analyzing data, writing a paper, and presenting your findings*
WHEN	*The course is offered on all semester programs*
FORMAT	*Student-designed project carried out under the direction of an SFS faculty mentor*
TIMEFRAME	*Approximately the last four weeks of the semester*
SAMPLE RESEARCH THEMES	*Climate change resilience • Elephant ecology • Agroforestry Traditional ecological knowledge • Mountain ecology Rainforest conservation & restoration • Food security Coral health • Sustainable ecotourism • Water quality & use Wildlife conservation • Pollution & waste management*

"Directed Research was the most challenging thing I have ever undertaken, but it is a significant personal accomplishment. I have gained a better understanding of myself, what I want in life, and where I am going. I feel better prepared as a burgeoning biologist seeking to study life and ensure its conservation for generations to come."

Daniel Erickson
University of Wisconsin-Madison

fieldstudies.org/research

A DAY IN THE FIELD

9:30 am

Kenya

STUDY AFRICAN WILDLIFE UP CLOSE

Embark on a wildlife expedition in Amboseli National Park, leaving camp after breakfast in search of lions, elephants, zebras, and wildebeest. Observe these incredible creatures up close while collecting data on their behavior.

11:15 am

Panama

SURVEY POPULATIONS OF SEA STARS ON THE BEACH

Grab your snorkel, mask, and wet suit and head to Playa Estrella, a popular tourist destination near the Center. Count sea stars in the shallow water to study the impacts of human handling on their population dynamics.

2:50 pm

Australia

RESTORE CRITICAL HABITAT IN THE RAINFOREST

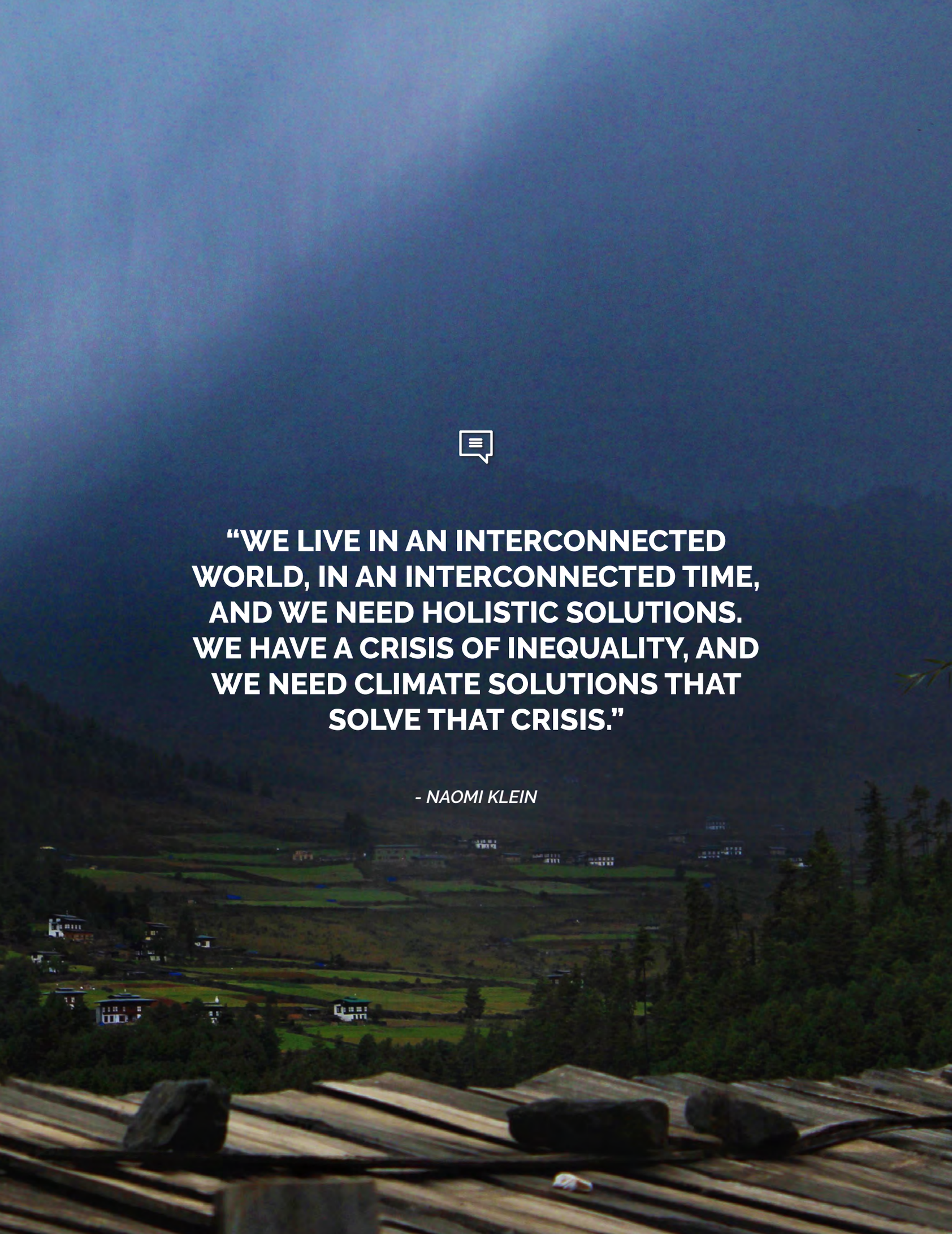
Fight back against the threats of deforestation, climate change, and development as you work alongside local volunteers to regenerate important rainforest corridors in North Queensland, Australia.

6:40 pm

Cambodia

WATCH THE SUNSET FROM A FLOATING VILLAGE

Catch the sunset from the deck of a floating village home on Cambodia's Tonle Sap Lake, where you'll spend the night. Enjoy a dinner of freshly caught fish with your host family as you learn about local customs and environmental impacts.



“WE LIVE IN AN INTERCONNECTED WORLD, IN AN INTERCONNECTED TIME, AND WE NEED HOLISTIC SOLUTIONS. WE HAVE A CRISIS OF INEQUALITY, AND WE NEED CLIMATE SOLUTIONS THAT SOLVE THAT CRISIS.”

- NAOMI KLEIN

AUSTRALIA

CENTER FOR RAINFOREST STUDIES

LOCATION	*Tropical North Queensland*
RESEARCH THEMES	*Climate change • Rainforest fragmentation and recovery • Marsupial behavior Aboriginal ecotourism • Forest ecotones • Habitat restoration*
CORE SKILLS	*GIS and GPS • Species ID and population monitoring • Forest survey methods Animal behavior observation • Citizen science protocols • Research presentation Research design and implementation • Data collection and analysis*

WWW.FIELDSTUDIES.ORG/AUSTRALIA

OVERVIEW

LEARN ABOUT CLIMATE CHANGE IN SOME OF THE WORLD'S MOST ANCIENT ECOSYSTEMS

This is not the Australia you know. Towering strangler fig trees and rare species like the southern cassowary and mahogany glider can be found in these ancient rainforests. Far North Queensland is one of the most biodiverse places in the world, preserving more than 500 million years of evolutionary history. It is also home to Earth's largest living organism – the Great Barrier Reef.

Based in this rugged region, SFS programs take place in Australia's legendary forests, with excursions to the edge of the Outback and the Great Barrier Reef. Our research focuses on the environmental threats that have caused rainforest fragmentation, species loss, and reef die-off, and we work with the Mandingalbay-Yidinji Indigenous people and Tablelands communities on restoration and management projects to reverse these impacts.

LIFE AT THE CENTER

At the end of a narrow, winding road, in the middle of a lush rainforest, lies this remote field station. Our 153-acre property is surrounded by protected World Heritage forests, and you can see incredible wildlife from the front steps of your cabin. Nearby Yungaburra and Cairns provide the occasional return to civilization.

- Group living in eight-person cabins
- Main building with classroom, lab, and study spaces
- Student lounge with scenic porch views
- Covered outdoor dining area, and on-site cook
- On-campus trails network for rainforest hikes
- Space to relax: volleyball, yoga, and hammocks

SEMESTER

FALL | SPRING
RAINFOREST TO REEF

Immerse yourself in the rich biodiversity of the rainforest and learn about socio-ecological resilience in the face of climate change and other environmental threats. Connect rainforest management and conservation issues with downstream impacts on the Great Barrier Reef. Become a part of large-scale restoration ecology experiments and study environmental policy and community conservation approaches while developing skills in field research and data collection.

14 WEEKS | **16** CREDITS | JAN 27 - APR 30, 2020 AUG 31 - DEC 03, 2020

COURSES

SFS 3020	Environmental Policy and Socioeconomic Values	4 credits
SFS 3690	Rainforest Ecology	4 credits
SFS 3700	Principles of Forest Management	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Explore the world's oldest rainforest – the Daintree – then work alongside community volunteers to regenerate critical rainforest habitats.
- Travel to the Great Barrier Reef to learn about the biological links between rainforest and reef ecosystems.
- Experience firsthand the transition from savannas on the edge of the Outback to the lush green coastal rainforests and mangroves.

SUMMER

SESSION I
RAINFORESTS OF NEW ZEALAND AND AUSTRALIA

In this two-country program, you'll learn how environmental and social factors have led to forest fragmentation in the spectacular, once-vast rainforests of Australia and New Zealand. Compare endangered species management practices, meet with Indigenous communities to learn about their natural resource use and relationship with the environment, and examine ecosystem restoration approaches.

04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3540	Rainforest Management Studies	4 credits

PROGRAM HIGHLIGHT

- Learn about the Māori people's connection with nature as you explore the ancient podocarp and Kauri forests of northern New Zealand, which contain trees estimated to be more than 2,000 years old.

SESSION II
WATERSHEDS OF THE WET TROPICS

The Great Barrier Reef and the tropical rainforests of northern Australia form a complex, interconnected system. Spend your summer learning about rainforest and watershed management in this verdant region while considering the policies and actions needed to maintain healthy waterways in the face of climate change.

04 WEEKS | **04** CREDITS | JUL 06 - AUG 05, 2020

COURSE

SFS 3161	Wet Tropics Watershed Ecology and Conservation	4 credits

PROGRAM HIGHLIGHT

- Snorkel on the Great Barrier Reef and learn about the links between rainforest restoration and water quality on the reef while observing sea turtles, giant clams, corals, and other marine organisms up close.

COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

BHUTAN

CENTER FOR HIMALAYAN ENVIRONMENT AND DEVELOPMENT STUDIES

LOCATION	*Paro, Western Bhutan*
RESEARCH THEMES	*Mountain ecology and conservation • Climate change • Gross National Happiness* *Forest management • River ecosystems • Agriculture and urban migration*
CORE SKILLS	*GIS and mapping • Species identification • Camera trapping and mist netting* *Biodiversity assessment • Forest survey methods • Data collection and analysis* *Research design and implementation • Research presentation*

WWW.FIELDSTUDIES.ORG/BHUTAN

OVERVIEW

VENTURE TO THE MOUNTAIN KINGDOM OF BHUTAN, WHERE CHANGE IS ON THE HORIZON

High in the Himalayas sits Bhutan, a small country defined by towering mountains, lush forests, and flowing rivers. Bhutan is home to endemic species like the snow leopard, tiger, golden langur, takin, and black-necked crane. The country's unique and well-known philosophy of Gross National Happiness integrates governance with rich cultural traditions, Buddhist principles, and environmental conservation.

As the country begins to rapidly modernize, the people of Bhutan are challenged to sustainably manage their wealth of natural resources in order to preserve biodiversity and secure their own economic futures. SFS works in partnership with the Bhutanese government and the Bhutan Ecological Society to provide much-needed data that informs sustainable conservation and development policies.

LIFE AT THE CENTER

The Center is located at one end of the stunning Paro Valley, at the base of a towering ridgeline dotted with Buddhist monasteries. Campus is a small cluster of buildings designed in the traditional Bhutanese architectural style. A pleasant 15-minute walk brings you to the markets, shops, and cultural events of Paro Town.

- Dorm living with two to four students per room
- Classroom and dedicated study spaces
- Kitchen and dining hall, and on-site cooking staff
- Student lounge and ping-pong table
- Verandas with scenic views of the valley
- Hiking trails and local roads for running

SEMESTER

FALL | SPRING
HIMALAYAN ENVIRONMENT AND SOCIETY IN TRANSITION

Spend a semester in a corner of the Himalayas where few foreigners ever set foot. Trek through remote villages and high mountain passes to experience Bhutan's vibrant culture, Buddhist philosophy, and environmental issues firsthand. Learn about the challenges of maintaining biodiversity and traditional rural lifestyles in a time of transition. Develop skills in field research and data collection, and apply them to a research project on conservation and development issues in Bhutan.

15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 / AUG 31 - DEC 09, 2020

COURSES

SFS 2010	Religion and Culture of Bhutan	2 credits
SFS 3040	Political and Socioeconomic Dimensions of Env't	4 credits
SFS 3050	Land Use, Natural Resources, and Conservation	4 credits
SFS 3060	Mountain Ecology	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Embark on a multi-day cultural trek to experience the natural beauty of Bhutan's countryside and the traditional lifestyles of its people.
- Visit monasteries, including Tiger's Nest, and take part in unforgettable *tshechus* (festivals) to learn more about Buddhism and Bhutanese culture.
- Explore Bhutan's diverse range of biomes through trips to Himalayan ridges, the subtropical Punakha and Chukha Valleys, and the alpine meadows of Phobjikha.

SUMMER

SESSION I
FORESTS IN THE LAND OF THE THUNDER DRAGON

Explore the rich culture, biodiversity, and dramatic mountain views of the Bhutanese Himalayas and learn how forests – which cover more than 70 percent of the landscape – are integral to the goals of Gross National Happiness. Spend four weeks surveying forests, visiting ancient shrines, and studying conservation and development in one of the most fascinating countries in the world.

04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3181	Himalayan Forests and Gross National Happiness	4 credits

PROGRAM HIGHLIGHT

- Trek across forested ridges and through remote villages, camping out under the stars and learning about Bhutanese culture and ecosystems firsthand.

SESSION II
BIG CATS OF THE HIMALAYAS: TRACKING AND CONSERVATION

In Bhutan, a deep cultural and spiritual reverence for life has aided in the preservation of the country's tigers, snow leopards, and other wild cats. Using camera traps and radio telemetry, study the conservation of these elusive creatures and learn how adaptation and management strategies can ensure their survival in a changing world.

04 WEEKS | **04** CREDITS | JUL 06 - AUG 05, 2020

COURSE

SFS 3191	Tracking and Conservation of Big Cats in the Himalayas	4 credits

PROGRAM HIGHLIGHT

- Set up camera traps in and around the sacred landscape of Taktsang with some of Bhutan's top biologists and capture images of endangered species such as the tiger and snow leopard.

COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

CAMBODIA

CENTER FOR CONSERVATION AND DEVELOPMENT STUDIES

LOCATION	*Siem Reap*
RESEARCH THEMES	*Elephant ecology • Climate change impacts • Traditional ecological knowledge* *Biodiversity conservation • Environmental justice • Buddhism influences*
CORE SKILLS	*Species identification and wildlife monitoring • Elephant behavior analysis* *Research design & implementation • Conservation grant writing • Ethics & reasoning* *Data collection and analysis • Research presentation • Basic Khmer language*

WWW.FIELDSTUDIES.ORG/CAMBODIA

OVERVIEW

IN CAMBODIA, CONSERVATION HAS FOUND ITS ROOTS IN COMMUNITY

Here, remnants of 12th-century temples share the landscape with wild forests, Buddhist monasteries, and small villages. Diverse ecosystems, from the mighty Mekong River to the Bokor Mountains, harbor rare species like the Asian elephant, sun bear, and Irrawaddy dolphin. The Tonle Sap Lake swells exponentially each year with the flood pulse and creates a dramatic seasonal shift for the wildlife and fishing and farming communities that call this region home.

Already experiencing severe impacts from climate change, Cambodia is a case study in resilience. Adaptation and collaborative conservation efforts are necessary for the people of Cambodia to ensure food security and limit biodiversity loss in a time of rapid development. Our research here examines these efforts on the ground and provides data to support a path toward a more sustainable future for Cambodia.

LIFE AT THE CENTER

Our most urban center lies on the outskirts of Siem Reap, near the famed temples of Angkor. The Center is a breezy, modern campus nestled in a quiet neighborhood minutes away from the bustling downtown area where you will find restaurants, shops, and markets with unique Cambodian flair.

- Dorm living with four-person bunkrooms
- Classroom building including library, study spaces, and balcony
- Student lounge with open loft and beanbag chairs
- Expansive open-air dining area, and on-site cooking staff
- Gyms and running routes in surrounding neighborhood
- Swimming pool, badminton court, and hammock bungalow

SEMESTER

FALL | SPRING
CONSERVATION, ETHICS, AND ENVIRONMENTAL CHANGE

Spend the semester exploring Cambodia's diverse ecosystems – from the great Tonle Sap Lake to the Gulf of Thailand. You'll visit the ancient Angkor temples, study threats to biodiversity, learn about environmental justice and policy, and discuss traditional medicines with Indigenous communities. Embark on a country-wide expedition, spending time in an elephant sanctuary in Mondulkiri, the mountain and coastal ecosystems of Kampot, and conservation sites along the Mekong River.

15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 / AUG 31 - DEC 09, 2020

COURSES

SFS 2080	Language and Culture of Cambodia	2 credits
SFS 3800	Conservation Science and Practice	4 credits
SFS 3810	Ecosystems and Livelihoods	4 credits
SFS 3820	Environmental Ethics and Development	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Meet the gentle giants of Mondulkiri: Visit the Elephant Valley Project, Cambodia's original elephant sanctuary, to study elephant behavior and ecology.
- Spend the night in a floating village on the Tonle Sap Lake and learn from villagers about how they're adapting their livelihoods to climate change.
- Observe some of Cambodia's most striking and endangered species: Cantor's giant softshell turtles, Irrawaddy river dolphins, gibbons, adjutant storks, and many more.

SUMMER

SESSION I
ELEPHANTS OF THE CAMBODIAN HIGHLANDS

Spend your summer in the lush Keo Seima Wildlife Sanctuary, studying the behavior and ecology of the endangered Asian elephant. Examine human-wildlife conflict and conservation pressures, and discuss elephant welfare and management practices. Visit the vibrant city of Phnom Penh and the ancient temples of Angkor to explore the history and culture of Cambodia.

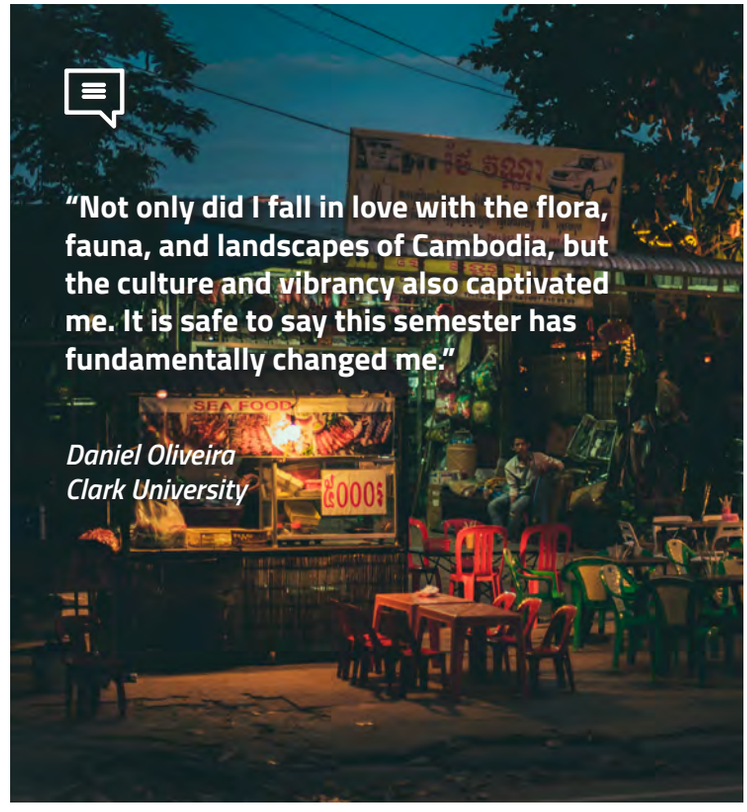
04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3111	Ecology and Conservation of Asian Elephants	4 credits

PROGRAM HIGHLIGHT

- Stay at the Elephant Valley Project in the forested Keo Seima Wildlife Sanctuary to observe Asian elephants from meters away as they forage, bathe, and interact with each other in a protected setting.



COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

THE AMAZON'S COMMUNITY CONSERVATION REVOLUTION

KATELYN HAMMEL | UNIVERSITY OF NORTH CAROLINA | SFS PERU

As I tilt my head back and gaze up at the Milky Way stretching over the Yarapa River, I think about everything that I've seen today. The morning began with a hike where we followed ocelot tracks and called to capuchin monkeys. On the boat ride back to the research base, we encountered a three-toed sloth swimming VERY slowly across the river, his grinning face bobbing up and down with each slow-motion stroke. Later, we counted shore birds including kingfishers, terns, egrets, and even the hilariously awkward horned screamers. During the ride we were able to see squirrel monkeys hopping from tree to tree and pink river dolphins circling the river mouth, searching for fish. Now we are cruising in an open wooden boat under the stars, using a spotlight to search for caimans along the rainforest shore. To be able to encounter all these animals in such a short time seems unreal, but this was nothing out of the ordinary for a day in the Amazon. The energy contained in this place is indescribably vibrant and the forest constantly spills over with sound and movement.

This part of the Tamshiyacu Tahuayo Regional Conservation Area was not always so lively and diverse. During the 1940s, outsiders began to harvest and exploit the rubber trees growing in the area, and throughout the 1900s, trees were clear-cut for timber while animals were hunted nearly to extinction for pelts and the exotic pet trade. The Indigenous people living in the region lost their usual food sources as well as certain parts of the forest that had traditionally been used for sustenance hunting for generations. As the forest was continually degraded, they lost more and more access to the natural resources that they had always been dependent on. In the 1980s, members of these communities reached out to a team of scientists who were in the area to study animal populations, looking for help. Together with the Peruvian government, they created a regional conservation plan that was revolutionary for the Amazon.

When Tamshiyacu Tahuayo was named a national reserve, emphasis was placed on allowing the sustainable use of resources by the Indigenous communities already in the area. Community members were able to continue fishing, hunting, and otherwise making use of the rainforest's resources while teams of conservationists monitored the processes to make sure they were being done in a sustainable way. Outsiders were kept from invading and exploiting the resources. Over time, the forest began to heal.

"Seeing this kind of success in a protected area gives me so much hope for the future of our world and makes me excited to be a part of similar conservation work."

Today, scientists continue to monitor the forest, measuring the health and diversity of the area. We were able to count bats, dolphins, and shore birds, and we caught fish along the Yarapa to assess the fish populations. Macaws were counted to reveal the presence of different fruits, while land mammals and caiman numbers gave us information about local hunting. Through this mutualistic conservation process, local communities have been able to restore their former levels of resource access while the forest has been able to recover and replenish severely decimated animal populations.

Being able to collect conservation data along transects while interacting with the local communities in the Tamshiyacu Tahuayo reserve made the visit an eye-opening experience for me. As a science student, many of my classes are solely focused on the empirical side of conservation, forgetting that local people are often dependent on natural resources and that ignoring their needs and rights in an effort to "save" an area can end up doing more harm than good. This reserve is a dynamic example of a model in which, through cooperation between scientists, local groups, and a little bit of governmental help, higher levels of conservation and biodiversity can be reached. Seeing this kind of success in a protected area gives me so much hope for the future of our world and makes me excited to be a part of similar conservation work.

READ MORE FROM OUR FACULTY, STAFF, AND STUDENTS IN THE FIELD AT:

fieldstudies.org/blog

CHILE

CENTER FOR CLIMATE STUDIES

LOCATION	*Puerto Natales, Patagonia*
RESEARCH THEMES	*Climate change impacts & resilience • Conservation policy • Ecological succession Aquaculture & aquatic ecology • Coastal & alpine ecology • Protected areas management*
CORE SKILLS	*Species identification and population monitoring • Landscape and soils analysis Natural resource valuation • Research design and implementation Research presentation • Data collection and analysis • Basic Spanish language*

WWW.FIELDSTUDIES.ORG/CHILE

OVERVIEW

PATAGONIA IS A STAGE FOR TRUE WILD

In Chilean Patagonia, towering pinnacles clash with rivers of ice, and life persists in the face of challenging seasonal extremes. Penguins, foxes, sea lions, and guanaco are just a few of the region's hardy wildlife. Situated in the Ring of Fire, Patagonia's stunning, snow-covered volcanic range presents an unmatched opportunity to study complex geological and seismic processes.

The fragile ecosystems of southern Chile and Argentina are especially vulnerable to the impacts of climate change – unpredictable storms, glacial melt, shifting temperatures, fires, and droughts. Our research in Patagonia examines ecology and geologic systems, the motivations and trade-offs of conservation decisions in the region, and species found nowhere else on the planet.

LIFE AT THE CENTER

Surrounded by the jagged peaks of Cerro Benítez and the deep blue waters of the Señoret Channel lies the port city of Puerto Natales – the gateway to the famous Torres del Paine National Park. Located in the heart of this bustling tourist hub is the Center for Climate Studies, your home base for expeditions throughout the region.

- Dorm living with two to four students per room
- Classroom and student lounge
- Kitchen and dining room, and on-site cooking staff
- Nearby hiking trail and running routes
- Steps away from the town square, shops, and cafes
- Short walk to the Señoret Channel, a scenic fjord

SEMESTER

FALL | SPRING
WILD PATAGONIA: FIRE AND ICE

Spend a semester amid the soaring peaks, massive glaciers, and narrow fjords of Patagonia, where the trails of national parks like Torres del Paine become your classroom for research and field work. Embark on expeditions to the southernmost tip of South America and up to the volcanic lakes region of northern Patagonia to study climate change impacts, diverse ecosystems, and conservation in one of the world's most iconic regions.

15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 SEP 07 - DEC 16, 2020

COURSES

SFS 2001	Language, Culture, and Society of Chile	2 credits
SFS 3081	Political and Social Dimensions of Conservation	4 credits
SFS 3601	Earth Systems and Climate Science	4 credits
SFS 3781	Patagonian Ecology	4 credits
SFS 4910	Directed Research	4 credits

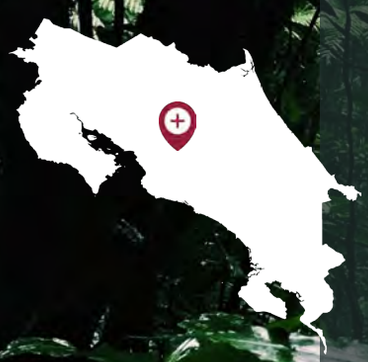
PROGRAM HIGHLIGHTS

- Hike through the dramatic landscapes of Torres del Paine National Park, and take an expedition to neighboring Argentina and the stunning Perito Moreno Glacier.
- From the Strait of Magellan, embark on a voyage through labyrinthine fjords, massive glaciers, and evergreen forests, to Cape Horn – the southernmost point of South America.
- Journey to northern Patagonia's lakes region, home to the lush Valdivian rainforests, the active Calbuco and Osorno volcanoes, and massive blue whales.

"The wind owns Patagonia. Everything here knows it. The rocks weather, the ice sculpts, the forests stunt, and the animals adapt or die. The people of Patagonia battle the constant force with fortitude and heart. Existing at the bottom of the world certainly isn't easy. Our research won't be easy either. But that's why we need to be here."

Mark Seifert, Ph.D.
Dean of Academic Programs

COSTA RICA



CENTER FOR SUSTAINABLE DEVELOPMENT STUDIES

LOCATION	*Atenas, Central Valley*
RESEARCH THEMES	*Climate change & tropical ecosystems • Agroforestry & conservation • Permaculture* *Avian behavior • Urban ecology • Sustainable ecotourism • Carbon sequestration*
CORE SKILLS	*GIS • Biodiversity assessment • Songbird mist-netting • Carbon stock assessment* *Forest soundscape survey • Research design and implementation* *Research presentation • Data collection and analysis • Basic Spanish language*

WWW.FIELDSTUDIES.ORG/COSTARICA

OVERVIEW

GO OFF THE BEATEN PATH AND EXPERIENCE SUSTAINABILITY IN ACTION

The rugged rainforests and sandy beaches of Costa Rica are brimming with life – from sloths to frogs to brightly colored toucans and hummingbirds. Costa Rica hosts an astounding 5 percent of Earth's species despite covering only 0.03 percent of its area. Shaded coffee farms integrated into the rainforest constitute just one example of the sustainable conservation strategies for which the country is known.

These efforts to preserve the wild beauty of Costa Rica are recognized worldwide, but climate change and increased urban development bring new and unforeseen challenges. Conservation leaders, farmers, land managers, and policymakers must work together using regenerative strategies to build ecological resilience and minimize climate change impacts. Our research in Costa Rica contributes vital data to innovative efforts that balance conservation and development.

LIFE AT THE CENTER

The Center is an active organic farm overlooking the vibrant Central Valley, where green is the predominant color as far as the eye can see. Dorms and classrooms intermingle with orchards and gardens, while Center dog Hera keeps watch over it all. The friendly town of Atenas is a 10-minute cab ride away, offering restaurants, shops, parks, and cultural events.

- Dorm living with four-person bunkrooms
- Classroom, library, computer lab, and laundry room
- Open-air porch with hammocks and chairs
- Dining hall with scenic valley views, and on-site cooking staff
- Swimming pool, soccer field, outdoor classroom, pizza oven
- Rainforest Alliance Certified™ farm

SEMESTER

FALL | SPRING
SUSTAINABLE DEVELOPMENT STUDIES

Experience a semester of sustainability in Costa Rica, home to rainforests, volcanoes, rushing waterfalls, and a laid-back culture that reflects the national motto: "Pura Vida." Immerse yourself in the country's many national parks, farms, and tropical ecosystems full of incredible biodiversity. Design and conduct a rigorous field research project and learn how Costa Ricans are creatively addressing conservation and development issues.

15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 / AUG 31 - DEC 09, 2020

COURSES

SFS 2050	Language, Culture, and Society of Costa Rica	2 credits
SFS 3740	Principles of Resource Management	4 credits
SFS 3770	Tropical Ecology and Sustainable Development	4 credits
SFS 3820	Environmental Ethics and Development	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Explore the cloud forests of Monteverde, home to 2.5 percent of the world's biodiversity, to study tropical ecology and sustainable land management.
- Take a week-long expedition to Panama's Chiriquí Highlands, a lush, forested region of volcanic peaks, coffee farms, rich Ngäbe-Buglé culture, and perpetual spring-like weather.
- Go behind the scenes at a local coffee farm and sustainable permaculture homestead to learn how Costa Ricans have successfully combined agriculture and conservation.

SUMMER

SESSION I
BIODIVERSITY AND SUSTAINABLE FOOD SYSTEMS

Using coffee and chocolate as case studies, explore the relationship between food systems, ecology, conservation, and sustainability. Learn how different agricultural techniques have the potential to restore biodiversity and combat climate change. Study the sociocultural history of coffee and cacao, from Indigenous histories to modern production and exports.

04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3141	Coffee, Chocolate, and Sustainable Development	4 credits

PROGRAM HIGHLIGHT

- Visit La Iguana Chocolate Farm, where you'll harvest cacao by hand and learn about permaculture, sustainable living, and local methods of chocolate processing.

SESSION II
FUNDAMENTALS OF SUSTAINABILITY RESEARCH

Spend your summer investigating issues of biodiversity conservation and sustainability in Costa Rica's vast network of national parks and protected areas – the perfect natural laboratory. Hone your research skills in the field as you design and conduct a research project, collecting data and presenting your results to your peers and key community stakeholders.

04 WEEKS | **04** CREDITS | JUL 06 - AUG 05, 2020

COURSE

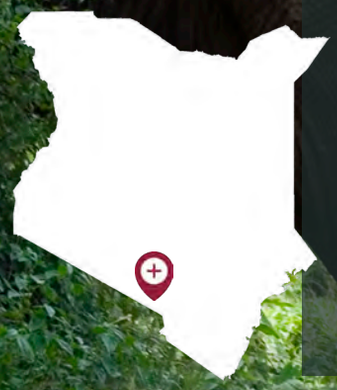
SFS 4930	Research Techniques and Strategies for Sustainability	4 credits

PROGRAM HIGHLIGHT

- Explore national parks in the Central Pacific lowlands, where lush rainforests, white sandy beaches, and mischievous primates attract multitudes of visitors – as well as a host of conservation challenges.

COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

KENYA



CENTER FOR WILDLIFE AND WATER STUDIES

LOCATION	*Kimana, Rift Valley, Southern Kenya*
RESEARCH THEMES	*Wildlife management & sanctuaries • Climate change resilience • Primate behavior Water conservation • National parks management • Community conservation*
CORE SKILLS	*GIS • Species identification and wildlife census • Animal behavior observation Water quality assessment • Basic Swahili language • Data collection and analysis Research design and implementation • Research presentation*

WWW.FIELDSTUDIES.ORG/KENYA

OVERVIEW

BOTH HUMANS AND WILDLIFE DEPEND ON ONE OF EARTH'S MOST VITAL RESOURCES – WATER

In the shadow of Mt. Kilimanjaro, Kenya's grassy savannas, Rift Valley lakes, and mountain highlands provide habitats for an astounding diversity of life, including the Big Five – lions, elephants, leopards, buffalo, and rhinos. The deep-rooted communities of the pastoralist Maasai people call this region home, and Kenya's famed national parks attract hundreds of thousands of visitors each year.

Kenya's biodiversity and traditional cultures are under threat. Climate change, drought, ecosystem fragmentation, and human development are increasing competition for the region's finite natural resources. Our research here focuses on sustainable conservation approaches that will address these issues and reduce conflict between humans and wildlife.

LIFE AT THE CENTER

The Center lies in the heart of Kenya's Rift Valley, between three world-famous national parks. The snow-capped peak of Mt. Kilimanjaro towers over miles of savanna, replete with a diversity of wildlife. Our sprawling, grassy campus includes traditional thatched *bandas* (cabins) and a central *chumba* (main building), just down the road from the small town of Kimana.

- Dorm living with four-person *bandas*
- *Chumba* contains classroom, computer lab, and study spaces
- Kitchen and dining hall, and on-site cooking staff
- Stunning views of Mt. Kilimanjaro from campus
- One-mile running trail on campus
- Volleyball, soccer, Frisbee, and fire pit

SEMESTER

FALL | SPRING
WILDLIFE, WATER, AND CLIMATE RESILIENCE

Discover the world-famous national parks and stunning landscapes of Kenya, while studying approaches to conservation and the country's diverse wildlife – from colossal elephants to the endangered black rhinoceros. In the heart of the Great Rift Valley, climate change and resource availability are affecting Kenya's ecosystems and those living in them. Research the root causes of these changes and how different conservation strategies can benefit both local people and wildlife alike.

15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 / SEP 01 - DEC 10, 2020

COURSES

SFS 2060	Swahili Language and East African Culture	2 credits
SFS 3071	Human Dimensions of Conservation	4 credits
SFS 3720	Wildlife Ecology	4 credits
SFS 3751	Techniques in Natural Resource Management	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- On a multi-day camping expedition, explore Amboseli National Park – widely regarded as the best place in the world to get close to free-ranging elephants.
- Spend two weeks in Tanzania, with expeditions to Serengeti National Park, Tarangire and Lake Manyara National Parks, and the Ngorongoro Conservation Area.
- Take part in a homestay with a local Maasai family and learn about their culture, history, daily life, and relationship with nature.

SUMMER

SESSION I
FUNDAMENTALS OF WILDLIFE MANAGEMENT

In this two-country fundamentals course, the world-famous national parks and reserves of Kenya and Tanzania are your classrooms. Through safari drives and field excursions, study wildlife found nowhere else on the planet – in person. Discuss different approaches to wildlife management and conservation, and learn about traditional knowledge and culture from Maasai and other community groups.

04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3500	Wildlife Management and Conservation	4 credits

PROGRAM HIGHLIGHT

- Take expeditions to Serengeti, Amboseli, and other legendary national parks to observe iconic wildlife – elephants, cheetahs, hippos, and more – and compare approaches to tourism and management.

SESSION II
PRIMATES OF THE AFRICAN SAVANNA

Primates are some of the most intelligent species on the planet and a fascinating case study on animal behavior. Venture into Kenya's national parks to study these complex, social creatures. Using field observations and research, learn about the ecology and behavior of Syke's, colobus, and vervet monkeys, bush babies, and yellow and olive baboons as well as human-wildife conflict and conservation issues.

04 WEEKS | **04** CREDITS | JUL 06 - AUG 05, 2020

COURSE

SFS 3151	Primate Behavioral Ecology in East Africa	4 credits

PROGRAM HIGHLIGHT

- Embark on overnight camping expeditions to Tsavo West and Amboseli National Parks, where you'll see primates, elephants, wildebeest, and carnivores in their natural habitats.

COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

PANAMA

CENTER FOR TROPICAL ISLAND BIODIVERSITY STUDIES

LOCATION	*Bocas del Toro Archipelago*
RESEARCH THEMES	*Climate change impacts • Marine protected areas • Rainforest biodiversity Tourism impacts • Ecosystem health • Community livelihoods and perceptions*
CORE SKILLS	*Species identification • Underwater transects & quadrats • Tourism impact assessment Scientific writing & communication • Basic Spanish language • Research presentation Research design and implementation • Data collection and analysis*

WWW.FIELDSTUDIES.ORG/PANAMA

OVERVIEW

PUT TROPICAL PARADISE IN PERSPECTIVE

Covered in lush rainforests, hundreds of mangrove islands, and coral reefs teeming with diverse marine life, the Bocas del Toro Archipelago serves as a living laboratory for studying tropical biodiversity. This chain of islands is populated by everything from hummingbirds and howler monkeys to stingrays, dolphins, sloths, and brightly colored poison dart frogs. At first glance, Bocas is nothing short of paradise.

However, climate change and increased tourism on the islands have led to ecosystem and natural resource degradation while also threatening Indigenous islanders' traditional livelihoods. Our research on the environmental impacts of tourism and development on the natural ecosystems in Bocas provides the community with data necessary to support more sustainable policies and protect the beautiful islands so many call home.

LIFE AT THE CENTER

The Center, once a beachfront hotel, lies among the slender palms and warm waters of Isla Colón. You'll take your classes over the waves of the Caribbean and among the surrounding rainforests and reefs. The laid-back tourist hub of Bocas Town is a short taxi ride away, with access to shops, restaurants, and a vibrant culture that is as unique as the mix of people who live here.

- Dorm living in four-person bunkrooms
- Classroom on a sheltered dock above the ocean
- Air-conditioned student lounge, lab, and staff offices
- Casual al-fresco dining area, and on-site cooking staff
- Swimming pool, kayaking, and paddleboarding
- Volleyball, spikeball, and beachfront hammocks

SEMESTER

FALL | SPRING
TROPICAL ISLAND BIODIVERSITY STUDIES

Spend a semester in the dynamic community of Bocas del Toro, where you will experience everything from underwater ecosystems to rich green rainforests. Go behind the scenes of this "paradise" as you study the impacts of tourism and development on the unique habitats of this island system. Evaluate local and national environmental policies and study the principles of sustainability and conservation as part of an in-depth field research project.

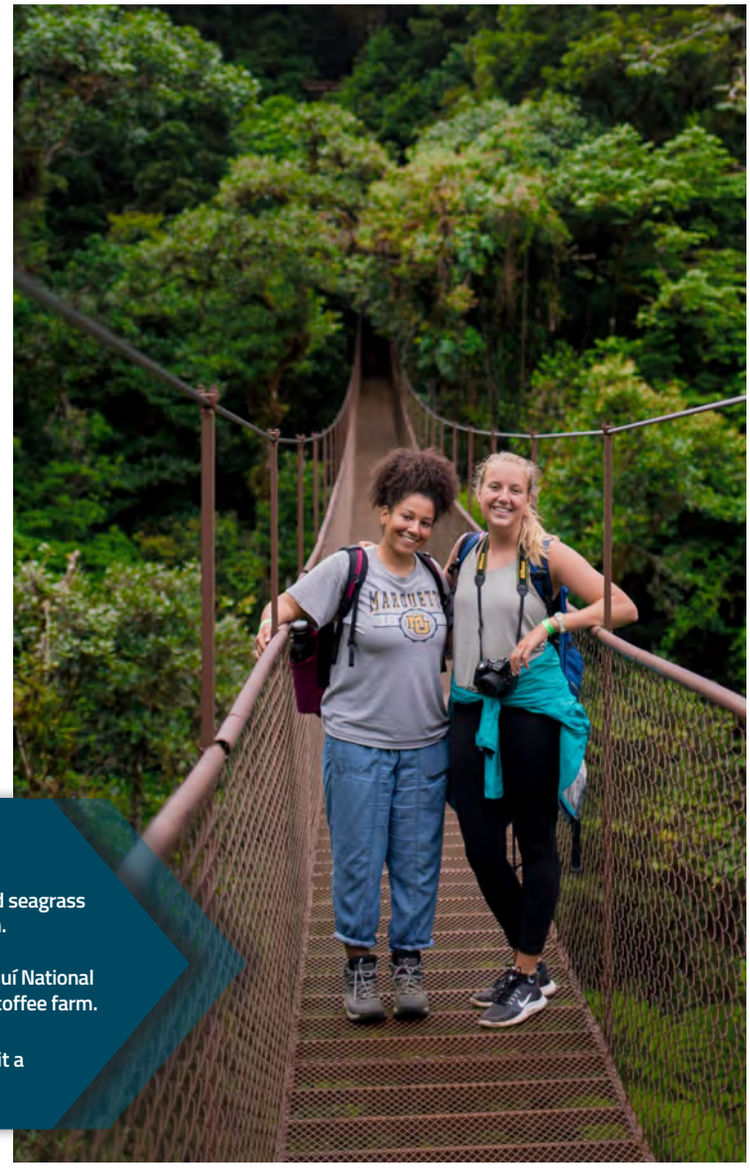
15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 / AUG 31 - DEC 09, 2020

COURSES

SFS 2070	Language, Culture, and Society of Panama	2 credits
SFS 3020	Environmental Policy and Socioeconomic Values	4 credits
SFS 3740	Principles of Resource Management	4 credits
SFS 3790	Tropical Coastal Ecology	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Snorkel in the waters of the archipelago to explore coral reefs, mangroves, and seagrass beds as you study sea stars, turtles, rays, dolphins, and schools of tropical fish.
- Visit the Pacific coast and the mountains of Boquete: Explore the Gulf of Chiriquí National Marine Park, take a canopy walk through cloud forest, and tour a sustainable coffee farm.
- Spend a day in Ngäbe communities: Speak with local Indigenous leaders, visit a women's co-op, and take a forest walk with a local guide.



SUMMER

SESSION I
TROPICAL ISLAND ECOSYSTEMS: THE HUMAN IMPACT

Snorkel and hike through the diverse environments of Bocas – from coral reefs and mangroves to beaches and rainforests – and study human impacts, such as tourism, on the island's ecosystems and communities. Meet the local residents who depend on both tourism and natural resources and learn about current approaches to sustainable development in the archipelago.

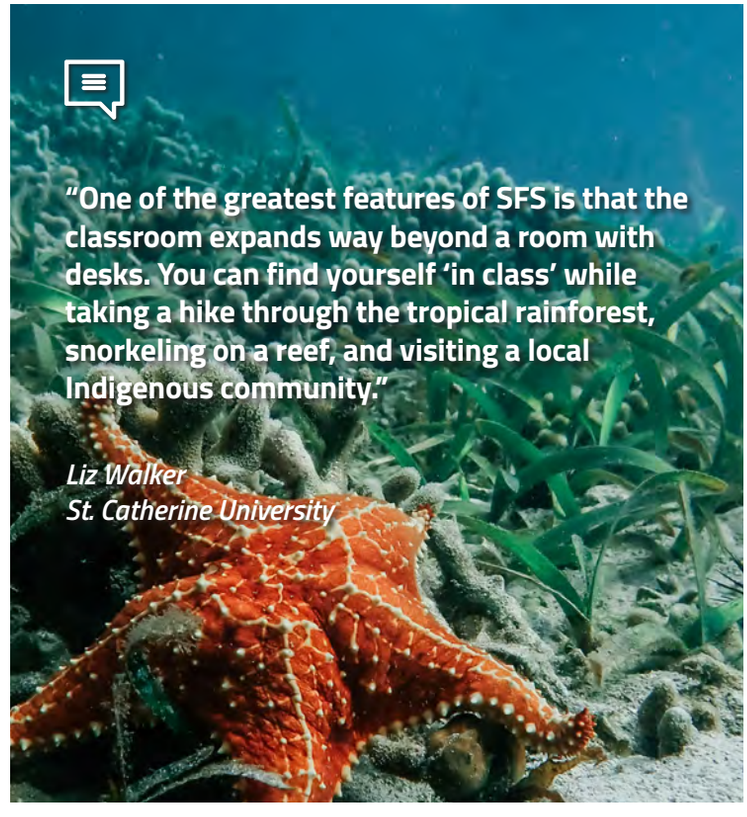
04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3000	Tourism and Island Systems: Sustainable Practices	4 credits

PROGRAM HIGHLIGHT

- Connect with Indigenous Ngäbe island communities: Learn about the importance of the natural environment to their culture and their efforts to create authentic, sustainable tourism.



COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

CINDA SCOTT, PH.D.

CENTER DIRECTOR | SFS PANAMA

Born and raised in Massachusetts, USA, Dr. Scott completed her undergraduate degree in Environmental Studies and Biology at Middlebury College in 1999 and later completed her Ph.D. in Marine Biology with a focus in molecular evolutionary genomics from the Rosenstiel School of Marine and Atmospheric Science (RSMAS) at the University of Miami in 2009. In 2010, she responded to a national call to increase the number of underrepresented minorities in STEM by serving as Program Manager of a National Science Foundation grant at New York City College of Technology, where she created innovative STEM teaching methods and taught in the Biology department. Her research now focuses on identifying bioindicators of mangrove forest health in Bocas del Toro, Panama. Her background in teaching, field work, and administration brought her to Panama in 2014, when she joined the SFS Center for Tropical Island Biodiversity Studies as Center Director.

EDUCATION	Doctorate in Marine Biology and Fisheries – Molecular Evolutionary Genomics *(University of Miami, Rosenstiel School of Marine and Atmospheric Science)*
TEACHING AT SFS	SFS 2070 Language, Culture, and Society of Panama *(Semester)* SFS 4910 Directed Research *(Semester)* SFS 3000 Tourism and Island Systems: Sustainable Practices *(Summer)*
AREAS OF EXPERTISE	*Marine Biology and Ecology • Marine Genomics • STEM Education* *Biodiversity and Conservation • Higher Education Leadership and Administration*

TROUBLE IN "PARADISE"

CHALLENGES TO CONSERVATION IN PANAMA

by Dr. Cinda Scott

With its crystal-clear waters and diverse array of terrestrial and marine organisms, Bocas del Toro, Panama is considered a natural Caribbean paradise. Beneath the surface, however, this archipelago is struggling to meet the demands of tourism; with a resident population of less than 10,000 people, Isla Colón receives hundreds of thousands of visitors per year. The large numbers of tourists continue to overwhelm the available resources and infrastructure of the island. As a marine biologist, I am deeply concerned about the overuse of marine resources not only in Bocas del Toro, but around the globe. My research focuses on anthropogenic impacts, such as coastal development, on mangrove forest health via marine biodiversity surveys of sponge, fish, invertebrate, and coral species.

While the challenges facing Bocas with regard to marine and island systems are not necessarily unique, the approaches to curbing these challenges are. Policies and politics are often at odds with conservation practices due to the heavy promotion of tourism and development in the region. What is the way forward when issues such as pollution and nutrient loading, overfishing, mismanagement of water-based tourism sites, algal blooms, increasing water temperatures, coral disease and bleaching, mangrove loss, destruction of critical habitat, coastal development, and climate change seem overwhelmingly insurmountable?

First, obtaining a deep understanding of the intricacies of the relationships between humans and their use of marine ecosystems and services is paramount in navigating these challenges. We must ask difficult questions surrounding our own cultural practices and conservation motives in addition to examining existing social, ethnic, and economic hierarchies and barriers to mobility, while respecting local in-country customs.

Second, we must continue to investigate through field work and research the connectivity of critical marine habitats. For example, how important is sponge to coral and mangrove forest health? Is the presence or absence of key species in highly disturbed or protected areas a determinant of overall ecosystem health? We continue to gather data from the mangal to interpret how this biome is valued and impacted by Bocatoreños and tourists alike.

Finally, sharing our findings and knowledge with local and national officials contributes to an existing and growing body of work developed throughout Panama by several NGOs and government agencies focused on myriad environmental issues through research and policy change. Additionally, through our community engagement program, Indigenous Ngöbe communities and leaders have requested our assistance with the development and revitalization of eco-tours via environmental education instruction, such as birding, to support self-sustaining Indigenous tourism. Ultimately, our goal is to provide relevant research data to all members of the Bocas community, promote sustainable use of natural resources, and educate future leaders in the fields of conservation and environmental science. Though Bocas has many challenges, I am proud to be working at the intersection of education, conservation, and research, and I am very proud to call Bocas home.

READ MORE FROM OUR FACULTY, STAFF, AND STUDENTS IN THE FIELD AT:

fieldstudies.org/blog

MEET OUR ALUMNI

...THEY'RE BUSY CHANGING THE WORLD

▲

Arjun Dheer

SFS Kenya/Tanzania Spring '12
Ph.D. student, Leibniz Institute for Zoo and Wildlife Research

"There is no way I would be where I am today without SFS. Having professors who were directly in my field and meeting scientists who were doing what I wanted to do for a living was eye-opening and incredibly rewarding. It showed me a career in large carnivore research was actually attainable."

Neil Fitzharris

SFS Turks & Caicos Spring '09
Origination Associate, EDP Renewables

"We were an amazingly tight-knit group of like-minded individuals who became instant friends. As a 30-year-old I have come to appreciate how rare that is."

▼

Marissa Cusick

SFS Costa Rica Summer '12
Assistant Farm Manager, Obercreek Farm

"So much of what I've done since graduating college has had a direct correlation to daily life on the SFS campus, projects for our classes, and the educational trips we took during the program."

▼

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Sybil Gotsch

SFS Australia Spring '96
Associate Professor of Biology, Franklin & Marshall College

"As soon as I got to Australia and spent a few weeks there, I thought, this is it. This is what I want to do. It showed me what it is really like to live at a field station, and you don't get that back at college."

PERU

CENTER FOR AMAZON STUDIES

LOCATION	*Iquitos, lowland Amazon*
RESEARCH THEMES	*Climate change • Forest and soil ecology • Sustainable aquaculture* *Natural resource management • Forest recovery • Development in the Amazon*
CORE SKILLS	*Species ID & population monitoring • Biodiversity surveys & transects • Interviewing* *Mapping techniques • Conservation strategy assessment • Basic Spanish language* *Research design & implementation • Data collection & analysis • Research presentation*

WWW.FIELDSTUDIES.ORG/PERU

OVERVIEW

DISCOVER THE LIVING AMAZON

In the heart of the Amazon, dense green foliage blankets the horizon as far as the eye can see. For millennia, its rich natural resources have supported human communities and an incredible diversity of wildlife species found nowhere else on the planet. This great and complex rainforest is also one of the world's most impactful ecosystems – Amazonian watersheds account for 20 percent of the world's river water.

However, the forests of the Peruvian Amazon are increasingly under threat from climate change, rapid development, and extractive activities like logging and mining. From the *terra firme* and flooded forests of the lowlands to the glacial lakes and tropical montane forests of the Andes, Peru's landscapes need comprehensive and inclusive strategies for conservation. Our research here provides important insights into the fate of the Amazon and all the life that depends on it.

LIFE AT THE CENTER

Between the remote city of Iquitos and the port city of Nauta, nestled in the Amazon, sits the Center. The sounds of the forest permeate our campus, from student cabins to the pool and open-air student lounge. The rainforest is accessible via an on-campus trail system which traverses our 183-acre property. Small communities and local shops are within walking distance.

- Dorm living with six-person bunkrooms
- Open-air student lounge and study space
- Large dining area, and on-site cooking staff
- Trail network extends from campus into the rainforest
- Traditional thatched-roof classroom
- Swimming pool, soccer field, volleyball, and hammock huts

SEMESTER

FALL | SPRING
BIODIVERSITY AND DEVELOPMENT IN THE AMAZON

Explore the extraordinarily biodiverse ecosystems of the northern Peruvian Amazon. Discuss threats to the region – from climate change to resource extraction – and get at the heart of Peru's conservation and development issues. Experience flooded forests on a multi-day riverboat expedition and travel to the Andean highlands where you'll visit cloud forests and the historic Incan capital of Cusco, the hub for visitors to Machu Picchu.

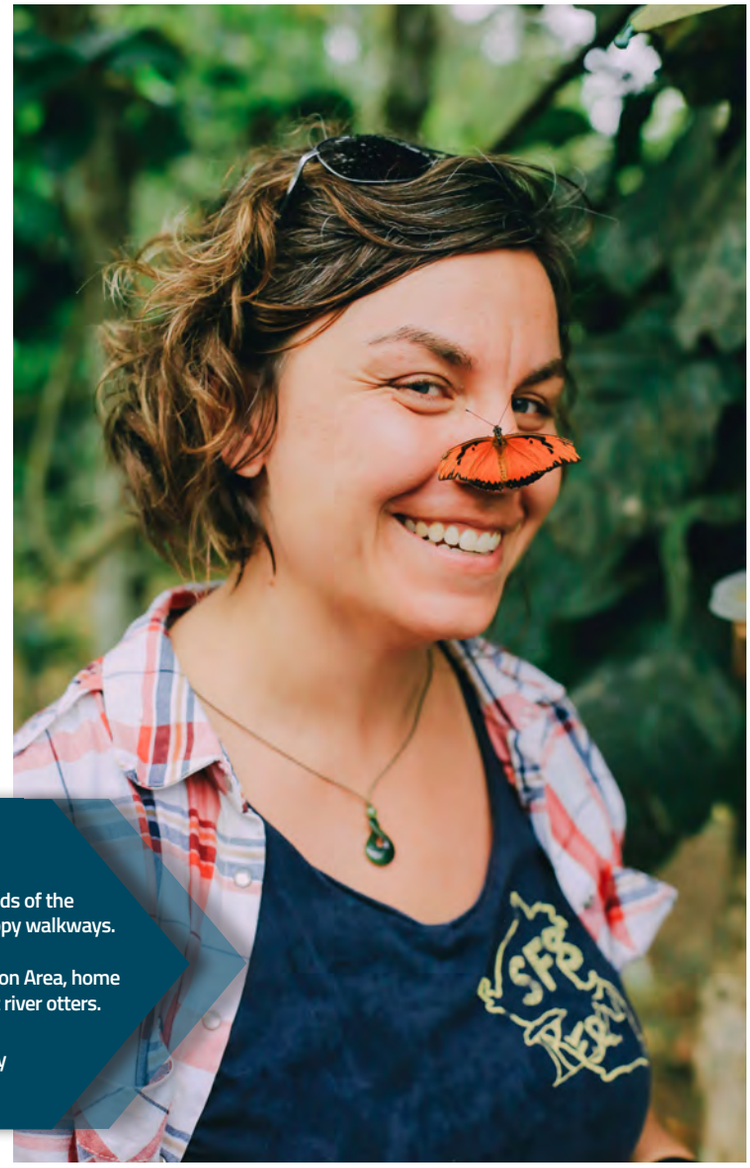
15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 / AUG 31 - DEC 09, 2020

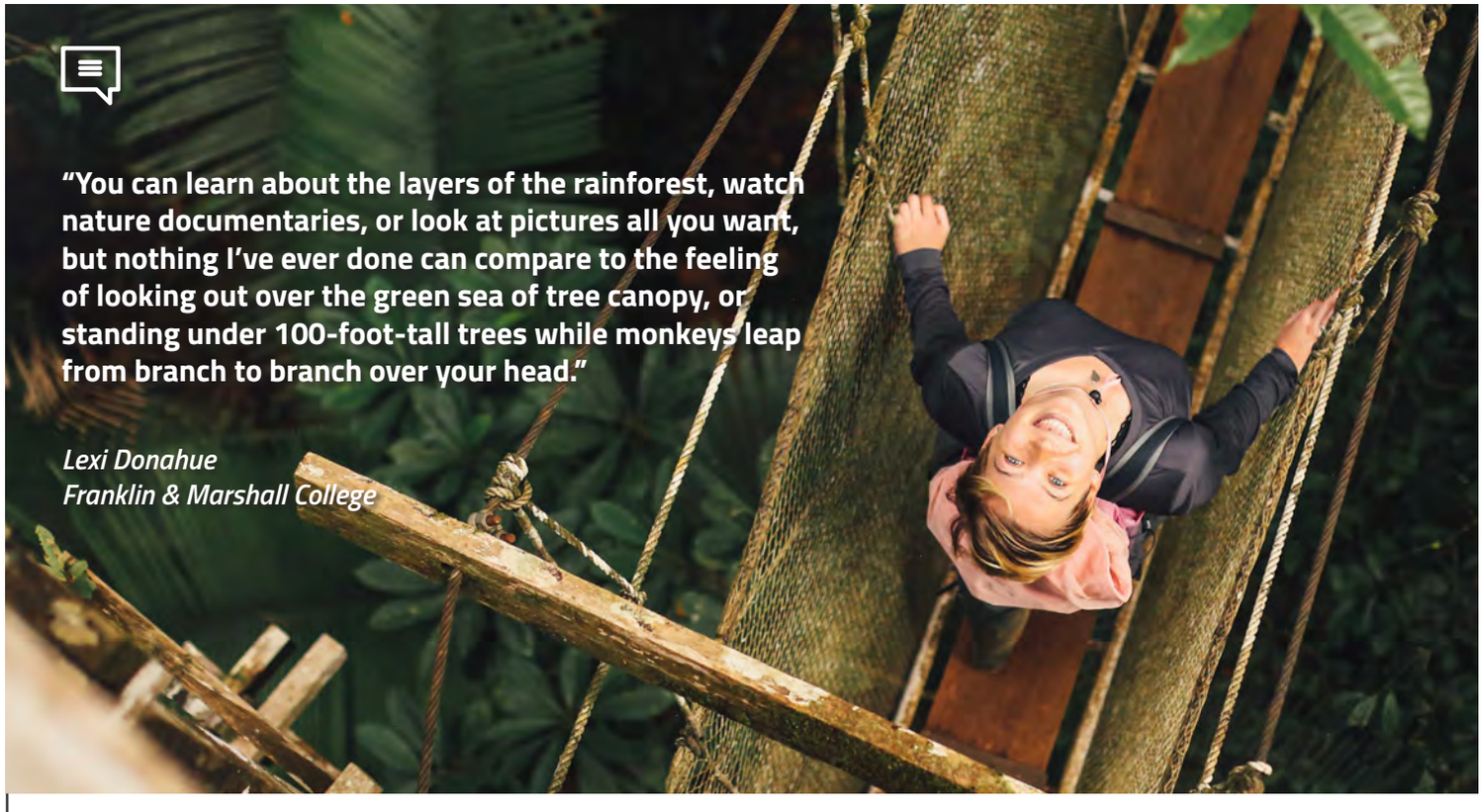
COURSES

SFS 2090	Language, Culture, and Society of Peru	2 credits
SFS 3800	Conservation Science and Practice	4 credits
SFS 3831	Tropical Ecology of the Amazon	4 credits
SFS 3840	Political Ecology of Developing Landscapes	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Take a multi-day excursion to the village of Sucusari to learn about the livelihoods of the Maijuna people and explore the rainforest from one of the world's longest canopy walkways.
- Take a five-day riverboat expedition in Tamshiyacu Tahuayo Regional Conservation Area, home to species like pink river dolphins, sloths, piranhas, primates, macaws, and giant river otters.
- Visit a manatee rescue center, tropical fish exporter, and potato and butterfly farms to study a range of local agriculture and conservation organizations.





"You can learn about the layers of the rainforest, watch nature documentaries, or look at pictures all you want, but nothing I've ever done can compare to the feeling of looking out over the green sea of tree canopy, or standing under 100-foot-tall trees while monkeys leap from branch to branch over your head."

Lexi Donahue
Franklin & Marshall College

TO READ A RECENT STUDENT'S PERSPECTIVE ON THE AMAZON RIVERBOAT EXPEDITION, GO TO PAGE 15 OF THIS CATALOG

TANZANIA

CENTER FOR WILDLIFE MANAGEMENT STUDIES

LOCATION	*Rhotia, Maasai Steppe, Northern Tanzania*
RESEARCH THEMES	*Wildlife conservation • Climate change • African large mammal behavior Carnivore ecology • Human-wildlife conflict • Community-based conservation*
CORE SKILLS	*GIS • Species ID and wildlife census techniques • Animal behavior observation Natural resource valuation • Basic Swahili language • Data collection & analysis Research design and implementation • Research presentation*

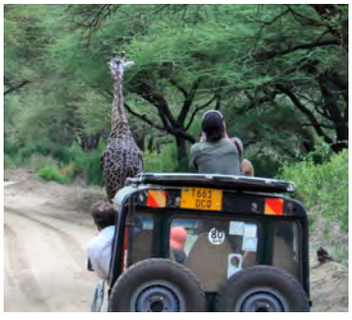
WWW.FIELDSTUDIES.ORG/TANZANIA

OVERVIEW

STEP BEYOND THE TOURIST EXPERIENCE IN EAST AFRICA

Few places in the world are more iconic than the African savanna. In Tanzania, baobabs and acacia trees dot the horizon, while wildebeest stampede through the Serengeti on their Great Migration. The Big Five – lions, elephants, leopards, buffalo, and rhinos – are all found here. Tanzania is also home to the Maasai, Iraqw, and Hadzabe tribes, all of whom have rich cultural traditions and strong ties to the land.

Tanzania has made progress in protecting its large populations of charismatic wildlife, but this complex landscape faces many challenges. Our research focuses on understanding the impacts of climate change, habitat fragmentation, and competition for resources and promotes successful coexistence between humans and the country's incredible wildlife.



LIFE AT THE CENTER

Learn to live the *pole pole* lifestyle at SFS' Moyo Hill Camp. Surrounded by Tanzania's world-famous national parks and wildlife, it's the perfect home base for expeditions into the field. Campus is reminiscent of summer camp, with plenty of outdoor and communal spaces, while the small, friendly community of Rhotia is just a short walk away.

- Dorm living in four-person *bandas* (cabins)
- Classroom, library, and computer lab
- Kitchen and dining hall, and on-site cooking staff
- Volleyball, gazebo, fire pit, and lounge areas
- Community soccer games and local running routes
- Fleet of safari cruisers

SEMESTER

FALL | SPRING
WILDLIFE MANAGEMENT STUDIES

Explore the iconic landscapes of Tanzania. Meet the country's charismatic wildlife – from magnificent lions and elephants to thunderous herds of wildebeest and zebras – as you learn about their ecology and behavior. Experience the rich culture and traditions of Tanzania's Maasai, Iraqw, and Hadzabe tribal communities while collaborating on issues of human-wildlife conflict and climate change. Finish the semester with an in-depth field research project.

15 WEEKS | **18** CREDITS | JAN 27 - MAY 06, 2020 / AUG 31 - DEC 09, 2020

COURSES

SFS 2060	Swahili Language and East African Culture	2 credits
SFS 3020	Environmental Policy and Socioeconomic Values	4 credits
SFS 3710	Techniques in Wildlife Management	4 credits
SFS 3720	Wildlife Ecology	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Embark on a multi-day camping expedition in Serengeti National Park, attending field lectures on the behavior and migratory patterns of the park's largest mammals.
- Learn about lion and elephant ecology in Tarangire National Park and visit Burunge Wildlife Management Area to learn about community-based conservation.
- Spend two weeks in southern Kenya, with expeditions to Amboseli National Park, Tsavo Conservation Area, the Chyulu Hills, and the Ngulia Rhino Sanctuary.

SUMMER

SESSION I
FUNDAMENTALS OF WILDLIFE MANAGEMENT

In this two-country fundamentals course, the world-famous national parks and reserves of Kenya and Tanzania are your classrooms. Through safari drives and field excursions, study wildlife found nowhere else on the planet – in person. Discuss different approaches to wildlife management and conservation, and learn about traditional knowledge and culture from Maasai and other community groups.

04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3500	Wildlife Management and Conservation	4 credits

PROGRAM HIGHLIGHT

- Take expeditions to Serengeti, Amboseli, and other legendary national parks to observe iconic wildlife – elephants, cheetahs, hippos, and more – and compare approaches to tourism and management.

SESSION II
CARNIVORES OF THE AFRICAN PLAINS

Tanzania is home to more than 35 species of carnivores, including the African lion, cheetah, leopard, and wild dog – all of which are on the IUCN Red List. Study the behavioral ecology and conservation challenges facing these incredible creatures, while observing some of Africa's largest remaining carnivore guilds up close.

04 WEEKS | **04** CREDITS | JUL 06 - AUG 05, 2020

COURSE

SFS 3121	African Large Carnivores: Ecology and Conservation	4 credits

PROGRAM HIGHLIGHT

- Visit the Tarangire Lion Project to learn from leading lion researchers and analyze pride population dynamics and individual behavior using radio telemetry and camera trapping data.

COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

TURKS & CAICOS

CENTER FOR MARINE RESOURCE STUDIES

LOCATION	*South Caicos Island*
RESEARCH THEMES	*Climate change and ocean acidification • Tourism impacts • Commercial fisheries* *Coral reefs, mangroves, and seagrass ecosystems • Marine protected areas*
CORE SKILLS	*Coral health assessment • Marine species identification • BRUVS surveys* *Underwater transects and quadrats • Research design and implementation* *Natural resource valuation • Data collection and analysis • Research presentation*

WWW.FIELDSTUDIES.ORG/TCI

OVERVIEW

LEARN TO LIVE ON ISLAND TIME

The Turks and Caicos Islands are home to vibrant coral reefs, dramatic sea walls, a deep ocean trench, mangrove forests, and extensive seagrass beds, which together sustain a stunning diversity of sea life. Spotted eagle rays, sharks, sea turtles, humpback whales, and dozens of fish species thrive among the sandy shoals, seagrass beds, mangrove forests, and coral reefs surrounding the islands.

These marine ecosystems are critical to the fisheries-driven local economy, but they are under enormous pressure from coastal development, a rising demand for seafood, and the impacts of climate change. Our research plays an important role in supporting island residents and government authorities as they work to balance economic need with the preservation of irreplaceable natural resources.

LIFE AT THE CENTER

The Center is a former hotel overlooking the crystalline waters of the Atlantic Ocean. Spectacular sunsets, open-air facilities, warm sunshine, and a refreshing ocean breeze define this marine field station. A five-minute walk brings you to the small, historic town of Cockburn Harbour, where students and faculty frequently engage in community activities.

- Dorm living with four to six students per room
- Beachfront campus with direct access to the ocean
- Air-conditioned classroom and computer lab
- Open-air dining space, and on-site cooking staff
- Dock, dive shed, and small fleet of research boats
- Volleyball, hammocks, and swimming pool by the ocean

SEMESTER

FALL | SPRING
MARINE RESOURCE STUDIES

Spend a semester on the island of South Caicos, where spectacular marine ecosystems are still largely untouched by tourism and development. Don your wet suit and get to know a host of marine life while conducting research on coral reefs, seagrass meadows, and mangroves. Evaluate fisheries resources and policies while collecting data that helps community members balance their rights and needs with the island's conservation goals.

15 WEEKS | **16** CREDITS | JAN 27 - MAY 06, 2020 / AUG 31 - DEC 09, 2020

COURSES

SFS 3020	Environmental Policy and Socioeconomic Values	4 credits
SFS 3730	Tropical Marine Ecology	4 credits
SFS 3740	Principles of Resource Management	4 credits
SFS 4910	Directed Research	4 credits

PROGRAM HIGHLIGHTS

- Go snorkeling and diving in the clear waters around South Caicos to conduct marine species identification exercises and parrotfish surveys.
- Visit the Grotto and Shark Alley to see eagle rays up close, and study their behavior and population dynamics using photo tracking.
- Take an excursion to the islands of Middle Caicos, North Caicos, and Providenciales to explore the variety of ecosystems in the TCI, including caves and protected wetlands.

SUMMER

SESSION I
FUNDAMENTALS OF MARINE CONSERVATION

Explore the spectacular reefs and turquoise waters of South Caicos, snorkeling or diving with rays, turtles, brilliantly colored fish, and other marine life. In this fundamentals course, you'll learn about the environmental issues and policies affecting these ecosystems and the island community, and gain the skills needed to conduct marine field research.

04 WEEKS | **04** CREDITS | JUN 01 - JUL 01, 2020

COURSE

SFS 3530	Tropical Marine Ecosystems: Monitoring and Management	4 credits

PROGRAM HIGHLIGHT

- Lay underwater transects to assess the health of the island's coral reefs, which are among the largest in the world and are home to diverse marine species including the valuable queen conch.

SESSION II
MARINE MEGAFAUNA

Spend your summer studying sharks, turtles, and rays in the waters surrounding the island of South Caicos. In this specialized course, you'll learn about the ecology and conservation of these and other marine megafauna through in-water field lectures, snorkel or dive sessions, and video tracking exercises.

04 WEEKS | **04** CREDITS | JUL 06 - AUG 05, 2020

COURSE

SFS 3131	Marine Megafauna Ecology and Conservation	4 credits

PROGRAM HIGHLIGHT

- Deploy Baited Remote Underwater Video Stations (BRUVS) and collect video footage of sharks and other predators to analyze species abundance and diversity inside and outside protected areas.

COMBINE TWO SUMMER SESSIONS AND GET MORE OUT OF YOUR SFS EXPERIENCE: WWW.FIELDSTUDIES.ORG/SUMMER

ADMISSIONS & FINANCIAL AID

PLAN
Talk to your home school, friends, & family

APPLY
Free to apply - Apply early for first choice

INTERVIEW
30-minute phone interview with SFS

PREPARE
Complete paperwork, book flights, pack your bags

LEARN
Your SFS adventure begins!

WHEN TO APPLY

SFS reviews applications on a rolling basis. While there is no application deadline, you should apply early to be considered for your first-choice program. Make sure to check with your home institution regarding school-specific study abroad application deadlines.

ACADEMIC CREDIT

SFS students receive academic credit in one of two ways: (1) via transcripts from the University of Minnesota, the School of Record for SFS programs; (2) directly from their home schools. Participants receive official transcripts approximately six weeks after the conclusion of the program.

Check with your academic or study abroad advisor and/or registrar's office before applying to learn how your SFS coursework will be applicable for credit in your degree program.

ELIGIBILITY

- 18+ years of age by program start
- You must be in good academic and disciplinary standing on your home campus.
- GPA requirements: 2.8 cumulative GPA for semester programs; 2.6 cumulative GPA for summer programs
- Course requirements: One college-level ecology, biology, or environmental studies/ science course (or related coursework, as assessed by SFS) with a grade of C or better must be completed prior to the start of all semester programs. No course requirements for summer programs.
- Gap-year students and recent college graduates are welcome to apply.

DIVERSITY AND INCLUSION

SFS strives to cultivate inclusive communities, encouraging student cohorts that represent human diversity across the globe. Our programs aim to support every student, including those who identify as a racial or ethnic minority, members of the LGBTQIA+ community, first-generation college students, and students from all underrepresented groups or underserved communities. We continue to develop strategies to support all students from the time they apply, during their program, and beyond. SFS recognizes that when all students' voices are valued and heard, confidence in academic ability thrives to the benefit of entire communities.

PROGRAM COSTS

Spring 2020 | Summer 2020*

**Fall 2020 program costs will be announced on our website in January 2020.*

Program	Semester	Summer I	Summer II	Summer Combined†
Australia	$22,955	$6,950	$5,975	$11,925
Bhutan	$24,950	$6,450	$6,450	$11,900
Cambodia	$21,950	$6,450		
Chile	$24,945			
Costa Rica	$20,755	$5,690	$5,690	$10,380
Kenya	$22,400	$7,485	$6,375	$12,860
Panama	$21,705	$5,950		
Peru	$21,950			
Tanzania	$23,250	$7,485	$7,485	$13,970
Turks & Caicos	$22,985	$6,350	$6,350	$11,700

†Students participating in two summer sessions receive a $1,000 discount. Amounts listed include this discount.

WHAT'S INCLUDED

- Tuition
- Room and board
- Pre-departure advising from an SFS Admissions Counselor
- Visa and travel coordination
- On-site orientation
- Field excursions and expeditions (including park entrance and research fees)
- On-program transportation, unless otherwise noted
- 24-hour support and emergency assistance from on-site residential staff
- Emergency medical evacuation insurance
- Official transcript with 16-18 credits (semester) or 4-8 credits (summer)

For complete course budgets, including out-of-pocket expenses, please visit **www.fieldstudies.org/admissions/costs.**

FINANCIAL AID

All students are eligible to apply for SFS need-based financial aid, regardless of whether they receive aid on their home campus. Every student who exhibits financial need will receive some form of aid from SFS.

SFS awards more than $850,000 in need-based financial aid each year. Aid packages are usually a combination of scholarships, grants, and loans.

fieldstudies.org/admissions/aid

QUESTIONS?

Admissions:
admissions@fieldstudies.org

Call us:
800.989.4418

Safety and Student Life:
safety@fieldstudies.org

Chat with us:
fieldstudies.org

Academic Affairs:
academics@fieldstudies.org

Schedule an advising session:
fieldstudies.org/admissions

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EXPLORE.FIELDSTUDIES.ORG