earthwatch expeditions
by Nat Hab

Explore with Purpose



Bees, Birds & Wild Beauty in Costa Rica

Protecting Pollinators in Monteverde's Cloud Forest, Farms & Conservation Lands

Table of Contents

Trip Overview 3

Itinerary 5

Accommodations 9

Meet the Scientists 10

Research & Impact 11

Discovery in the Field 13

Dates, Pricing & Info 15

Know Before You Go 18



Trip Details:

Days
8 Days / Jun–Jul, Dec

Price
From $7492

Bees, Birds & Wild Beauty in Costa Rica

Protecting Pollinators in Monteverde's Cloud Forest, Farms & Conservation Lands

In Costa Rica's Monteverde region, pollinators are woven into nearly every landscape. Metallic-green orchid bees visit tropical flowers along cloud forest trails. Stingless bees flit between flowering gardens and forest edges. Hummingbirds dart through misty mountain forests while butterflies drift across pastures and farms. Together, they sustain wild habitat, farmlands and flowering plants. On this project, join scientists studying native bee diversity at the intersection of Monteverde's high-altitude forests, agricultural and conservation lands. Search flowering plants for bees, document pollinator activity, and contribute specimens to the Bee Barcode of Life Initiative. Along the way, visit a center dedicated to stingless bees, examine specimens beneath a microscope, explore one of the world's most vibrant cloud forests, and spend time with farming families whose livelihoods rely on healthy pollinator communities. Every observation and specimen you collect contributes to a growing scientific record that helps researchers better conserve native pollinators.

Expedition Highlights

Find and Record Pollinators in Costa Rica's Cloud Forest

Walk among flowers on mountain trails looking for orchid, stingless and other bee species as you document pollinator diversity in Monteverde's biodiverse landscapes.

Explore Monteverde from Cloud Forest to Coffee Farm

Hike under the misty canopy, and visit family farms growing coffee, sugar and produce, experiencing the intersection of closely connected tropical forests and agriculture.

Visit a Stingless Bee Center & Taste Rare Honey

Observe 20 native bee species, explore their nesting structures, and sample exquisite local honey prized throughout Mesoamerica.

Research at a Glance



The Research Focus

Investigate how native bee communities vary across Monteverde's cloud forests, farms and restoration sites, and how changes in climate and habitat may affect their pollination services.



What You'll Do

Collect bees from flowering plants, document pollinator activity, help identify plant species, survey pollinator communities and support demonstration agroforestry and restoration projects.



Why It Matters

More than three-quarters of global crops depend on pollinators, yet climate change and habitat loss threaten tropical species essential to healthy forests, food systems and biodiversity.



Bees, Birds & Wild Beauty in Costa Rica Itinerary

Protecting Pollinators in Monteverde's Cloud Forest, Farms & Conservation Lands

Itinerary at a Glance

Day 1	San Jose
Day 2	San Jose / Monteverde
Day 3	Monteverde
Day 4	Monteverde
Day 5	Monteverde
Day 6	Monteverde
Day 7	Monteverde
Day 8	Monteverde / San Jose



Day 1

San Jose

Gather in San Jose before your pollinator research expedition

- Meet your Field Guide and fellow travelers over a Costa Rican welcome dinner
- Learn how the week's fieldwork will examine pollinators across Monteverde's farms, forests and conservation sites

Arrive in San Jose, the capital of Costa Rica, where you are met and transferred to our hotel near the airport. This evening, gather with your Field Guide and fellow travelers for a welcome dinner featuring regional Costa Rican cuisine. Learn about the week ahead in Monteverde, a landscape where high-altitude tropical cloud forests, agricultural lands and conservation sites intersect—and about the ongoing field research you're soon to join.

Day 2

San Jose / Monteverde

Discover Monteverde's pollinators through its orchids

- Drive into the Tilaran Mountains past dairy farms, forested ridges and views of the Gulf of Nicoya
- Visit the Monteverde Orchid Garden, where some flowers are no larger than a thumbnail
- Meet the scientists leading the project at the Tropical Agroforestry Institute

Leave the broad Central Valley this morning and drive into the Tilaran Mountains. As the winding road ascends, we pass dairy farms, forested ridges and sweeping views of the Gulf of Nicoya before reaching the cool, misty highlands of Monteverde, Costa Rica's most renowned mountain landscape. Stop for lunch along the way before continuing to our base for the week.

This afternoon, visit the Monteverde Orchid Garden, where hundreds of species occupy a surprisingly small space. Some flowers are no larger than a thumbnail. Others resemble insects, stars or delicate ribbons. Many depend on a single pollinator species to reproduce, making them a fitting introduction to the ecological relationships so significant to the biodiversity of this region. Later, continue to the Tropical Agroforestry Institute (TAI), the scientific hub where we will be based. Researchers, students and conservationists gather here to study sustainable agriculture, tropical ecology and pollinator communities across Costa Rica. Meet the scientists leading the project over dinner, and hear how bee populations vary among farms, forests and across elevations throughout Monteverde.

Day 3

Monteverde

Collect bees and document the plants that sustain them

- Sweep aerial nets through flowering vegetation across farms, forest edges and restoration plots
- Visit a center housing colonies of 20 native stingless bee species
- Sample stingless-bee honey and learn how pollinator conservation supports local livelihoods

Our fieldwork focus launches this morning, with the research team analyzing conditions and setting our agenda for the day. Research locations change with flowering cycles, weather and project priorities. You may sweep aerial nets through patches of blooming vegetation to collect bees and other pollinators for identification, photograph flowering plants for submission to iNaturalist, or help document the connections between specific pollinators and the plants they visit. Our research sites span elevations ranging from roughly 650 to 4,900 feet above sea level.

One morning may find you examining squash and pumpkin blossoms in home gardens, documenting the insects that visit each flower. On another, you may assist researchers as they deploy brightly colored pan and vane traps in restoration plots to compare pollinator communities across recovering habitats. On certain days, a light honey solution is sprayed onto vegetation to lure stingless bees, drawing them in for observation and collection before they are identified in the lab. The work takes place over a patchwork of farms, forest edges and recovering habitats that support distinct pollinator communities. The data collected helps researchers understand which plants support the greatest diversity of bees and how pollinator populations vary across Monteverde's landscape.

Return to the Tropical Agroforesty Institute (TAI) for lunch, then visit a local stingless bee center established in 2023. Inside, colonies representing 20 native species occupy nesting boxes that reveal dramatically different architectures and behaviors. These bees produce honey, pollinate forests and crops throughout the region, and have been valued for centuries by Indigenous communities, particularly the Maya, for their medicinal honey. Sample it, along with traditional foods, and learn how local families are reviving regional food traditions through the production of spices, preserves and other products, supporting local livelihoods and pollinator conservation. The visit concludes with a farm-to-table dinner highlighting ingredients grown and produced on site.

Day 4

Monteverde

Study bees, visit a coffee farm visit and explore the cloud forest after dark

- Track bee activity and flowering cycles across farms, forest edges and mountain slopes
- Follow coffee from ripe cherries to roasted beans on a family-owned shade-grown farm
- Search for glass frogs, giant moths, kinkajous and other nocturnal wildlife on a guided night walk

Spend another morning in the field following researchers through Monteverde's farms, forest edges and mountain trails as we track bee activity and flowering cycles across the landscape. No two field days are exactly alike. One morning may focus on surveying blossoms buzzing with pollinators after overnight rain, while another has us monitoring crop flowers in family gardens or searching for bee activity along cooler cloud forest slopes.

Later this afternoon, visit a small family-owned coffee farm tucked into the mountains beneath towering shade trees and patches of old-growth forest. Unlike industrial sun-grown coffee plantations, shade-grown farms like this create habitat for birds, insects and pollinators while helping retain soil and moisture on steep hillsides. Walk through the entire process from harvesting coffee cherries to roasting beans, breathing in the scent of drying coffee and fresh earth while learning how biodiversity and farming are deeply connected in Costa Rica's highlands.

After a private dinner at the farm, head to Bajo del Tigre Forest Reserve for a guided night walk through the cloud forest with a naturalist guide. As darkness envelops us, species that spent the day hidden begin to emerge. Search leaves and branches for glass frogs and other amphibians that thrive in the cool, humid conditions. Watch for sleeping birds perched in the understory, giant moths drawn from concealment, and insects that become active after sunset. Our guides may also help us spot nocturnal mammals such as kinkajous or opossums moving through the forest. Our experience is a vivid reminder that much of the activity in the cloud forest takes place after dark. Pollinators, predators and prey all change their behavior as daylight fades, revealing a side of Monteverde most daytime visitors never encounter.

Day 5

Monteverde

Learn how scientists identify tropical bee species

- Search blooming plants for pollinator activity across changing elevations and habitats
- Study preserved bees at the Tropical Agroforestry Institute
- Compare wing veins, body hairs and other features scientists use to identify species

After a slower start this morning following last night's cloud forest walk, return to the field with the research team to continue tracking pollinator activity across Monteverde's farms, forests and conservation areas. Spend the day searching for bee activity among blooming plants, documenting species interactions and helping scientists build a clearer picture of how pollinator communities shift across elevations and habitats.

Back at TAI this evening, the focus turns from the field to the lab. Join our lead scientist for a closer look at the astonishing diversity of tropical bees and the conservation questions driving the project. Then sit down at microscopes to examine preserved specimens up close, studying the tiny anatomical details scientists use to distinguish one species from another—minute differences in wing veins, hairs and body structures often invisible to the naked eye. You'll learn why some collected bee specimens are preserved in ethanol for later study. In tropical ecosystems, many bee species look nearly identical in the field and can only be accurately identified through microscopic examination. This painstaking work helps researchers understand which species are most vulnerable to climate change and habitat loss, and which habitats are most important to protect.

Day 6

Monteverde

Hike through cloud forest alive with orchids, hummingbirds and quetzals

- Follow trails lined with bromeliads, mosses, ferns and flowering epiphytes
- Watch for hummingbirds and resplendent quetzals moving through the canopy
- Reach the windswept elfin forest where the extinct golden toad once lived

Spend the morning in the field with the research team before gathering for a picnic lunch at Centro Científico Tropical. Founded in 1962, CCT was one of Costa Rica's pioneering conservation organizations, playing a central role in establishing the reserve and helping to protect more than 26,000 acres of cloud forest that now serves as a globally important center for research, conservation and biodiversity. This afternoon, follow a local naturalist guide on trails lined with orchids, bromeliads, mosses and ferns as clouds drift in veils of mist through the trees. Moisture beads on leaves overhead while epiphytes blanket trunks and branches, drawing water directly from the mist. Depending on the day's route, the hike may extend toward the Continental Divide, where weather and vegetation shift dramatically across the mountain crest. Nearby lies the elfin forest, a windswept habitat of stunted, moss-covered trees and the former home of the now-extinct golden toad, a species that was found nowhere else on Earth. Keep watch for hummingbirds darting between flowers, and, with luck, we might spy a resplendent quetzal moving through the canopy in flashes of emerald and crimson. Back at TAI this evening, dinner is followed by a talk explaining Monteverde's impressive transformation from remote farming region to internationally recognized conservation landscape—and how science, ecotourism and local communities continue to work together to shape its future.

Day 7

Monteverde

Plant native seedlings after a final morning of pollinator fieldwork

- Return to the farms, forests and mountain slopes for one last research session
- Plant native species raised for future habitat restoration across Monteverde
- Watch sugarcane crushed in a traditional trapiche mill before a farewell dinner

This morning marks our final session of pollinator fieldwork in Monteverde—a last opportunity to head into the forests, farms and mountain slopes where the week's research has taken place. After lunch at TAI, visit the nursery where scientists cultivate native plants used in habitat restoration studies throughout the region. Walk among rows of young shrubs and flowering species while learning how researchers determine which plants best support diverse bee communities and healthier ecosystems over time. You'll also have the chance to plant seedlings that may eventually become part of future restoration sites in the Monteverde landscape.

We then continue to a locally owned sugarcane farm where traditional production methods are still employed. Watch freshly cut cane fed through a trapiche mill to extract its sweet juice, then follow the process as it's slowly cooked down into raw sugar and traditional sweets. The air is redolent with the scent of caramelizing sugar as we sample local treats and learn how sugarcane production influenced generations of rural Costa Rican communities and agriculture.

As the sun drops behind the lush mountains of Monteverde, gather for a private farewell dinner hosted exclusively for our group. Traditional forest foods and regional ingredients take center stage as we celebrate the week's discoveries with our fellow participant scientists, research team and naturalist guides.

Day 8

Monteverde / San Jose

Depart with a firsthand understanding of pollinator research in Costa Rica

- Drive from Monteverde to San Jose for homeward flights

Our Costa Rica expedition comes to a close today—we've gained firsthand experience in tropical pollinator research and a deeper understanding of the cloud forest habitat, sustainable farming practices and conservation efforts connected through pollination science in Costa Rica.

After an early breakfast, we drive back to the airport in San Jose to connect with outbound flights. We may have been here just a week, but our efforts contribute to a much wider body of work focused on protecting the amazing biodiversity of Costa Rica's highlands.



Bees, Birds & Wild Beauty in Costa Rica Accommodations

Protecting Pollinators in Monteverde's Cloud Forest, Farms & Conservation Lands



Hotel Aeropuerto

A quiet garden retreat five minutes from the airport, with tropical grounds, comfortable rooms, warm local hospitality and an easy atmosphere that makes arriving in or departing Costa Rica feel restful.



Los Pinos Cabins & Gardens

Named for the pine forest surrounding it, these private cabins are immersed in Monteverde's cloud forest, with misty trails, dense gardens, wildlife sightings and easy access to nearby reserves.

For detailed descriptions, visit nathab.com/earthwatch-expeditions/costa-rica-bee-conservation-science-trip/accommodations.

Meet the Scientists

Bees, Birds & Wild Beauty in Costa Rica



Valerie Peters, Ph.D.

Assistant Professor of Biology, Eastern Kentucky University

Dr. Valerie Peters is an assistant professor of biology at Eastern Kentucky University whose research focuses on pollinators in tropical forests and coastal ecosystems. She studies how pollinator communities and the pollination they support are affected by climate change and habitat loss, with a focus on protecting these systems in Costa Rica. She earned her Ph.D. in Ecology from the University of Georgia, following earlier studies in biology and ecology at Pennsylvania State University.

Her work centers on understanding how pollinator diversity supports ecosystem health and food production. By studying bees and other species across elevation gradients, she examines how changing conditions influence where pollinators occur and how effectively they pollinate plants. Her research contributes to conservation strategies that protect pollination services, including efforts to restore pollinator-friendly habitats in agricultural and forested landscapes. This work helps inform how land can be managed to support both biodiversity and long-term food security.

In the field, she conducts long-term monitoring through sampling and photographic surveys across different elevations. Early in her work, seeing bees up close under a microscope sparked a lasting fascination—the diversity of their colors, patterns and forms rivals that of birds, yet much of it goes unnoticed. That sense of discovery continues to shape her approach to research and teaching in the field. Through this work, she helps build a clearer picture of how pollinators respond to changing conditions, providing the knowledge needed to protect these essential species and the ecosystems they support.

Education

Ph.D. in Ecology, Odum School of Ecology, University of Georgia
B.S. in Biology/Ecology, Pennsylvania State University

Research & Impact

Bees, Birds & Wild Beauty in Costa Rica

You're contributing to a long-term research program investigating how climate change and habitat loss are altering wild bee populations in Costa Rica's Monteverde region. By studying pollinators in cloud forests, farms and habitat restoration sites, researchers are uncovering how these changes affect biodiversity, food production and the resilience of tropical ecosystems.

Research Focus

Researchers survey bees and flowering plants along Monteverde's elevational gradients to understand which pollinator species are most vulnerable to warming temperatures and changing rainfall patterns. The project has already documented hundreds of bee species and identified the flowering plants that support the greatest pollinator diversity. The team is also testing whether restoration strategies like agroforestry plantings and biodiversity islands can strengthen pollinator habitat in working agricultural landscapes—findings that could help guide future conservation and sustainable farming practices in tropical ecosystems.

Conservation Impact

This project is generating long-term data to better protect pollinators while testing restoration strategies that can work beyond protected areas.

- More than **250 bee species documented** through a decade-plus of monitoring in the Monteverde region
- One of the **first long-term datasets tracking tropical pollinators** across climate and elevational gradients in Mesoamerica
- Nearly **3,000 documented plant-pollinator interactions** identifying which flowering plants support the greatest pollinator diversity
- Research revealing major **shifts in bee communities linked to changing rainfall patterns** and climate variation
- **Experimental restoration plots** testing how mixed-species plantings influence pollinator diversity in agricultural landscapes
- Thousands of collected bee specimens contributing to the **Bee Barcode of Life Initiative** and future pollinator research
- Research guiding **agroforestry and restoration strategies** that support pollinators while strengthening local farming resilience
- Establishment of a **stingless bee outreach center** promoting pollinator conservation, traditional knowledge and sustainable livelihoods

Each season of fieldwork deepens understanding of how pollinators survive in changing landscapes—and what it will take to protect the ecosystems and crops that depend on them.

Your Role in the Research

Work alongside scientists and local farmers to survey pollinators across cloud forests, gardens, farms and restoration plots. You may photograph flowering plants, observe pollinator visits, collect bees using nets or traps, document crop pollination or help maintain experimental restoration plantings. Every observation contributes to a growing long-term dataset used to better understand how climate change and habitat loss are affecting these species and the ecosystems they sustain.

Life in the Field

Most days begin on mountain trails or in agricultural landscapes surrounding Monteverde, where you'll survey flowering plants, observing pollinators and assisting with field research. Research sites range from misty cloud forest edges to family farms and restoration plots scattered across steep hillsides. Days may also include visits to local farms, presentations from scientists or tours of community-led conservation projects connected to the research. Evenings often end with locally grown meals, conversations with scientists and the sounds of the cloud forest settling in for the night.

Field Conditions

Expect active days outdoors in humid tropical conditions that may include rain, mud, heat and steep terrain. Research sites span a broad elevational gradient, so temperatures and weather can shift quickly throughout the day. Activities may involve hiking 2–5 miles on slippery mountain trails or agricultural plots, working in dense vegetation and spending extended periods outdoors around insects and other wildlife. Field plans regularly adapt to weather and research priorities, making flexibility essential to the experience.

Discovery in the Field

Bees, Birds & Wild Beauty in Costa Rica

1. **Contribute to the Bee Barcode of Life Initiative**
   Help collect specimens that contribute to an international effort to identify and catalog bee diversity across Costa Rica and the Americas.

2. **Experience Monteverde Beyond the Tourist Trail**
   Survey bees in hidden mountain landscapes few travelers ever see, from quiet family farms to secluded restoration plots where the only sounds are birdsong and the hum of native bees.

3. **Explore the Monteverde Cloud Forest Reserve**
   Hike through one of Costa Rica's most famous protected areas, home to the rare resplendent quetzal, one of the world's most spectacular birds, and view the vibrant tapestry of orchids, bromeliads and moss-covered trees.

4. **Search for Tropical Pollinators Across Monteverde**
   Track orchid bees, stingless bees and other pollinators through cloud forest, flowering gardens, agricultural landscapes and habitat restoration sites.

5. **Experience the Cloud Forest After Dark**
   Join guided night walks beneath the forest canopy, listening for frogs and insects while searching for tarantulas, kinkajous and other nocturnal wildlife after sunset.

6. **Sample the Flavors of Costa Rica**
   Drink world-renowned locally grown coffee, savor tropical fruit, and, thanks to your scientist's decades of collaboration with Monteverde's farming community, linger after private tours for home-cooked meals with the families.

7. **Contribute to Pollinator Research With Real-World Impact**
   Help researchers investigate how climate, rainfall and habitat change are reshaping tropical bee communities in Monteverde while studying how pollination influences fruit growth and crop production in local gardens and farms.

8. **Plant Biodiversity Islands for Pollinators**
   Establish experimental habitat plots with native flowering shrubs and trees, creating pockets of forage and shelter designed to sustain diverse pollinator communities across fragmented agricultural landscapes.

9. **Travel With an Intentionally Small Group**
   Because we deliberately limit group size to a small cohort of participant researchers, each guest enjoys meaningful time in the field, close interaction with the research team and an active role in daily research activities.

10. **Discover with a Dedicated, Expert Field Guide**
    Your Field Guide ensures each day runs smoothly, coordinating logistics, supporting field activities and helping guests better understand the landscapes and communities visited throughout the trip.

11

Explore With Purpose

Take part in fieldwork that supports ongoing conservation research, directly contributing to the protection of pollinators and the habitats they sustain.

Ready to Book? Call an Adventure Specialist at 800-548-7555



Dates & Pricing Summary:

Price
From $7492

Group Size
Limited to 12 Travelers

Bees, Birds & Wild Beauty in Costa Rica Dates, Pricing & Info

Protecting Pollinators in Monteverde's Cloud Forest, Farms & Conservation Lands

2027 Departures

Departure – Return	Pricing	Notes
Jun 6 - Jun 13, 2027	$7492	
Jun 19 - Jun 26, 2027	$7492	
Jun 27 - Jul 4, 2027	$7492	
Jul 5 - Jul 12, 2027	$7492	
Jul 13 - Jul 20, 2027	$7492	
Dec 14 - Dec 21, 2027	$7492	

2028 Departures

Departure – Return	Pricing	Notes
Prices and dates not confirmed for 2028		
Jun 6 - Jun 13, 2028	From $5995	
Jun 19 - Jun 26, 2028	From $5995	
Jun 27 - Jul 4, 2028	From $5995	

Departure – Return	Pricing	Notes
Prices and dates not confirmed for 2028		
Jul 5 - Jul 12, 2028	**From $5995**	
Jul 13 - Jul 20, 2028	**From $5995**	
Dec 14 - Dec 21, 2028	**From $5995**	

See https://www.nathab.com/earthwatch-expeditions/costa-rica-bee-conservation-science-trip/dates-fees for the latest pricing details.

Included

Trip price includes: Accommodations, services of our professional local Field Guides and additional local guides and lodge staff, all meals from dinner on Day 1 through breakfast on final day, some alcoholic beverages, some gratuities, private transfers throughout the itinerary, airport transfers on Day 1 and final day, all activities and entrance fees, all taxes, permits and service fees.

Not Included

Travel to and from the start and end point of your trip, some alcoholic beverages, some gratuities, passport and visa fees (if any), optional activities, items of a personal nature (phone calls, laundry, etc.), airline baggage fees, airport and departure taxes (if any), required medical evacuation insurance, optional travel protection insurance.

Important Information About This Trip

Conditions & Environment

- Be comfortable outdoors for extended periods in heat, sun, or rain. Research activities will take place rain or shine
- Expect the potential presence of insects, snakes, and other wild animals during outdoor research and recreational activities.
- Be prepared for limited access to restrooms while in the field (up to several hours at a time)

Additional Considerations

- Basic comfort with remote travel conditions and a flexible mindset are important
- Ability to follow safety instructions and communicate clearly with staff is essential
- Guests should be comfortable engaging with different cultures and working closely in a small group setting

Mandatory Insurance

Since the areas we travel to are remote and wild (that's why we go there!), we require that all guests have, at minimum, medical evacuation insurance for this program. This is for the safety of all guests. We require that your chosen independent insurance plan includes a minimum of $250,000 in medical evacuation coverage.

To protect your investment and to provide peace of mind while you travel, we also strongly recommend purchasing comprehensive travel insurance. Plans may cover everything from medical treatment to trip cancellations and delays and lost luggage. Please contact our office if you would like more information about the medical evacuation and comprehensive travel insurance policies we offer by calling 800-548-7555.

Getting There & Getting Home

This trip begins and ends in San Jose, Costa Rica. **You must arrive in San Jose by 4:30pm on Day 1** in order to make it to the hotel in time for a 6pm welcome dinner. For guests who come in early, recommended hotels will be included in your pre-departure materials.

You may depart San Jose, Costa Rica any time after 12pm on the final day.

Our Earthwatch Expeditions Nat Hab Air Team can best assist with your travel reservations, as our staff is familiar with the specific requirements of this program and can help arrange the most efficient itinerary. Please call us at 800-548-7555. While we offer the best available rates to us on airfare and additional nights accommodations, you may occasionally find special web rates or lower fares online.

Know Before You Go

Bees, Birds & Wild Beauty in Costa Rica

Whether you're preparing for your upcoming expedition or simply want to learn more about Costa Rica's cloud forests, these resources will help you explore one of the most important pollinator landscapes in the tropics. Discover the wild bees that support rainforest biodiversity and food production, learn how climate change is affecting pollinators and explore the conservation efforts helping sustain these vital species across forests, farms and restoration sites.

Why Is Monteverde One of the Best Places in the World to Study Pollinators?

In Monteverde, mist drifts through cloud forest canopy, coffee farms and flowering hillsides where wild bees, butterflies and hummingbirds carry pollen between orchids, tropical fruits and thousands of rainforest flowers. These interactions sustain one of Costa Rica's most biologically rich mountain landscapes while also supporting the farms and food crops that depend on healthy pollinator populations.

Monteverde's steep elevational gradients create a natural laboratory for studying how climate change affects pollinators. As temperatures rise and rainfall patterns shift, researchers are investigating which species are most vulnerable, which flowering plants provide critical resources and how habitat restoration can help support pollinator communities across forests and agricultural landscapes.

This combination of exceptional biodiversity, long-term research and close collaboration with local farming communities makes Monteverde a meaningful place for participants to contribute to conservation efforts that support both tropical ecosystems and food production.

Quick Facts: Protecting Pollinators in Costa Rica's Cloud Forest

- **Location:** Monteverde, Costa Rica
- **Research partner:** Tropical Agroforestry Institute
- **Primary species:** Orchid bees, stingless bees and other native bee species
- **Key activity:** Pollinator surveys and habitat restoration
- **Conservation focus:** Pollinator diversity, habitat restoration and sustainable agriculture

What Wildlife Will I See on a Protecting Pollinators Expedition?

Wild bees are the primary focus of this expedition, but Monteverde's cloud forests and agricultural landscapes support a remarkable diversity of wildlife. Participants spend time in forests, gardens, farms and restoration sites where pollinators interact with flowering plants across a variety of habitats.

Guests may encounter a variety of wildlife during research activities, including:

Invertebrates

- Native bee species, including stingless bees and orchid bees
- Butterflies
- Leaf-cutter ants

Primates and Mammals

- White-faced capuchin monkeys
- Coatis
- Agoutis
- Variegated squirrels
- Fruit bats

Birds

- Numerous hummingbird species
- Blue-crowned motmots
- Brown jays
- Clay-colored robins
- Great kiskadees
- Long-tailed manakins
- Rufous-and-white wrens
- Keel-billed toucans
- Emerald toucanets
- Chachalacas and guans
- A variety of parrots and parakeets

Reptiles and Amphibians

- Lizards and snakes
- Tree frogs and other frogs

Monteverde's cloud forests are among the most biologically rich ecosystems in Costa Rica, supporting an intricate web of interactions between plants, pollinators and the wildlife that depend on healthy forests.

What Is the Climate Like During a Costa Rica Expedition?

Monteverde's mountain climate is cooler than many visitors expect from Costa Rica. Cloud cover, mist and rain are common throughout the year, and conditions can change quickly as weather moves across the mountains.

Condition	What to Expect
Daytime Temperatures	65–80°F
Nighttime Temperatures	55–65°F
Humidity	High year-round
Rainfall	Frequent rain, mist and cloud cover possible
Terrain Conditions	Trails may be muddy and slippery

Seasonal Notes	Weather can vary significantly across elevations

Fieldwork takes place across a range of elevations and habitats, from cloud forest trails to agricultural landscapes. Participants should be prepared for a mix of sunshine, mist, rain and rapidly changing mountain conditions.

Frequently Asked Questions

Do I need research experience?

No prior research experience is required. Scientists and field staff provide training and guidance in pollinator surveys, field observation techniques and data collection methods used throughout the project.

What type of research will I assist with?

Participants assist scientists studying wild bee diversity, pollinator behavior and habitat restoration in Monteverde's cloud forests and agricultural landscapes. Activities may include documenting flowering plants, observing bee visits to flowers, monitoring crop pollination, collecting pollinators for identification and helping establish or maintain habitat restoration plots.

What is the conservation impact of this research?

This expedition supports long-term research investigating how climate change and habitat loss affect tropical pollinators. Data collected by participants helps scientists identify important pollinator species, understand plant-pollinator relationships and evaluate restoration strategies that support biodiversity and sustainable agriculture.

How physically demanding is the expedition?

Participants should be comfortable hiking 2–5 miles per day on mountain trails and working outdoors in humid tropical conditions. Fieldwork may involve muddy or slippery terrain, dense vegetation and extended periods outdoors while conducting research.

Can weather affect research activities?

Yes. Rain, fog and changing mountain weather can affect daily fieldwork and research priorities. Scientists regularly adapt field plans based on conditions while continuing data collection whenever possible.

What happens in case of an emergency?

Participant safety is a priority on all expeditions. Field staff follow established safety procedures and maintain communication during field activities. If medical care is required, staff coordinate transportation to the nearest appropriate medical facility.

What immunizations & travel vaccinations do I need?

Participants should consult a healthcare provider before travel and ensure routine vaccinations are up to date before visiting Costa Rica. Guests should also take precautions against insect bites and prepare for extended outdoor activity in tropical environments.

What should I bring?

Participants receive a detailed packing list before departure outlining recommended clothing, field gear and personal supplies. Essential items include rain gear, hiking footwear, lightweight layers and gear appropriate for outdoor fieldwork in humid mountain environments. Snake guards will be provided on-site, but participants may bring their own, if desired.

What Should I Pack for a Protecting Pollinators Expedition?

Participants should pack for humid mountain conditions, frequent rain and active days outdoors on cloud forest trails and agricultural landscapes. Weather can change quickly throughout the day, making lightweight layers and reliable rain protection essential.

Recommended items include:

- Lightweight, quick-drying clothing
- Long-sleeved shirts and long pants
- Waterproof rain jacket
- Waterproof hiking boots or trail shoes
- Extra socks
- Lightweight fleece or insulating layer
- Wide-brimmed hat
- Refillable water bottle
- Small daypack
- Insect repellent
- Sunscreen
- Headlamp or flashlight
- Binoculars (optional)
- Camera or smartphone for documenting observations
- Snake guards will be provided on site, but some may wish to bring their own

Because research sites may be muddy, wet and steep, sturdy footwear and dependable rain gear are among the most important items to bring.

What Will I Experience on Bees, Birds & Wild Beauty in Costa Rica?

Participants assist scientists studying wild bees and pollination across Monteverde's cloud forests, farms and restoration sites. Fieldwork may include observing pollinators visiting flowers, documenting plant species, monitoring crop pollination and helping establish habitat designed to support bee diversity.

Beyond the research, participants explore orchid gardens, visit family-run coffee and sugar farms, learn about traditional stingless bee management, hike through cloud forests and experience the close connection between conservation, agriculture and daily life in Monteverde.

What Does Daily Fieldwork Look Like?

Most days begin in the field alongside researchers, visiting forests, farms, gardens and restoration sites across Monteverde's mountainous landscape. Participants may observe bee activity on flowering plants, monitor pollination in agricultural plots, document habitat conditions or help collect data on pollinator diversity.

Fieldwork changes with weather, flowering cycles and research priorities. Some days focus on cloud forest habitats, while others take place on working farms or restoration sites where scientists are testing strategies to support pollinators in agricultural

landscapes. Evenings may include presentations from researchers, laboratory sessions examining specimens or guided walks through the cloud forest.

earthwatch
expeditions
by Nat Hab

Natural Habitat Adventures · PO Box 3065 · Boulder, CO USA 80307

US & Canada: 800-548-7555 · International: 303-222-8861

© 2026 Natural Habitat Adventures