



TROPICAL ECOLOGY & THE GREAT BARRIER REEF

Bio-Treks: STEM Ecology Series

A global series of immersive STEM programs exploring biology, ecology, geology, ocean science, and environmental sustainability through hands-on fieldwork and meaningful environmental context.

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Bio-Treks: STEM Ecology Series

Cairns, Queensland and the Wet Tropics, Australia

Day	Meals	Morning	Afternoon	Evening
1		Overnight Air Travel to Cairns, Australia; meals in flight (2-days)		
2				
3	D	Arrive Cairns, Australia; transfer to hotel, check-in and refresh	Welcome, Safety & Orientation Briefing	The Esplanade & Cairns Lagoon Excursion Swimming, Fun & Australian Relaxation
4	B, L, D	Biodiversity Introduction & Mangrove Boardwalk Workshop	SERVICE PROJECT: Creek Clean-Up & Conservation	Botanic Gardens with a Botanist
5	B, L, D	Insect Biology Workshop in Cairns Highlands	Crater Lakes National Park Giant Trees & Crater Lake Hike	Plant Evolution Trail, The Gondwanan Heritage Garden
6	B, L, D	Platypus Spotting	Wet Tropics Fieldwork Transects & Vegetation Profiles	Dinner & Free Time
7	B, L, D	Environmental Debate	Leaf Classification	Bat Hospital & Sanctuary
8	B, L, D	James Cook Research Station Canopy Crane	Daintree Rainforest & Swim	Dinner
9	B, L, D	Ferry to Fitzroy Island, Great Barrier Reef	"Future of the Reef" Marine Biology Great Barrier Reef Talk	Dinner, Insect Activity & Making Light Traps
10	B, L, D	Boat Ride to Great Barrier Reef	Great Barrier Reef: Guided Snorkeling, Marine Science & Coral Watch Data Collection	Dinner & Nocturnal Wildlife Spotting
11	B, L, D	Great Barrier Reef: Snorkeling / Scuba & Fish Data Collection, Reef Data Collection, Oceanography & Service	Turtle Rehabilitation Center	Dinner
12	B	Urban Challenge or Community SERVICE PROJECT	Depart Cairns for Home	Water Quality Testing
13		Arrive Home		



As with all sample itineraries, please be aware that this is an "example" of a schedule and that the activities included may be variable dependent upon dates, weather, special requests and other factors. Itineraries will be confirmed prior to travel.



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A Message From Our Team

At STEM Study Tours, we believe students learn best when they're immersed, engaged, and inspired. Every program is built with intention - blending hands-on discovery, academic depth, and meaningful experiences that help students see the world (and themselves) in new ways. Our goal is for each itinerary to spark curiosity, build confidence, and create moments students carry long after the trip ends. We're honored to partner with schools who share that vision and to help bring learning to life beyond the classroom.

— Michele & The Hammock Expeditions Team

Why Travel With Hammock Expeditions & STEM Study Tours

Schools choose us because we design programs that are organized, intentional, and built around real learning. Our itineraries combine strong academics with smooth logistics, giving teachers confidence and giving students opportunities to explore, ask questions, and grow. We partner with trusted local experts, communicate clearly, and support groups every step of the way so educators can focus on their students - not the logistics.

What Sets Us Apart

- **Purpose-Driven Itineraries** - Students actively participate in meaningful, real-world learning.
- **Safety, Structure & Professionalism** - From 24-hour support to vetted partners and clear communication, we ensure teachers can focus on their students while we handle the logistics.
- **Hands-On, High-Impact Learning** - Our programs emphasize field science, conservation, and experiential learning - the kind that sticks with students long after the trip ends.
- **Student-Centered Design** - We balance learning with fun, reflection with adventure, and structure with flexibility. Every day is crafted to keep students engaged, energized, and supported.
- **A Team That Travels With Purpose** - We're educators, planners, naturalists, and travel professionals who care deeply about student growth. Your goals become our goals.

Our Commitment to You

When you travel with us, you gain a partner who understands your vision, anticipates your needs, and delivers an experience your students will remember for years to come. We're here to support your school, empower your students, and make every moment meaningful.

We want to be your educational partner. Let us know how we may serve you.

Michele, Christina, Izzy, Dana, Taylor, and the Team



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Day 1: Starting the Journey Down Under

Meals in flight

Travel overnight to Australia.

Day 2: Crossing the Pacific

Meals in flight

Continued overnight travel to Australia.

Tropical Ecology & the Great Barrier Reef

Where Ecology Meets Exploration: Australia's tropical north is a living laboratory where biodiversity, conservation, and culture converge across rainforest, reef, and outback. From the mangrove boardwalks of Cairns to the coral gardens of the Great Barrier Reef, students explore ecosystems shaped by both science and story. Whether studying insect biology in the highlands, collecting data on reef health, or walking the rainforest with Indigenous guides, this itinerary transforms Queensland into a hands-on classroom where ecology and environmental science come alive. With every trail, tide, and research station, students engage with the natural world through an Australian lens - one that celebrates discovery, stewardship, and the interconnectedness of life.

A Journey That Inspires Stewardship: This program is designed to ignite curiosity and deepen understanding of the planet's most diverse habitats. Students collaborate with marine biologists, participate in fieldwork at James Cook University, and contribute to conservation projects that protect fragile ecosystems. Alongside these scientific experiences, they encounter Australia's cultural heritage - from Indigenous perspectives on sustainability to the vibrant coastal life of Cairns. Through immersive research, expert-led workshops, and meaningful service, students gain more than knowledge; they gain purpose, perspective, and the inspiration to lead in a world shaped by science and environmental responsibility.



Did you know?

- › The Great Barrier Reef is the largest living structure on Earth, stretching more than 1,400 miles along the Queensland coast and visible from space.
- › Cairns sits within the Wet Tropics World Heritage Area, home to the oldest continuously surviving tropical rainforest on the planet.



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- › More than one quarter of all marine species rely on coral reefs at some point in their life cycle, making reef health critical to global biodiversity.
- › The Daintree Rainforest contains plant species that date back more than 100 million years, offering a window into ancient evolutionary history.
- › Indigenous communities in Queensland have used ecological knowledge to manage land and sea for thousands of years, including sustainable harvesting and fire practices.
- › The Great Barrier Reef supports more than 1,500 species of fish, including the iconic clownfish, giant clams, and reef sharks.
- › The cassowary, found in the Wet Tropics, plays a vital role in rainforest regeneration by dispersing large seeds that other animals cannot swallow.
- › James Cook University is one of the world's leading centers for marine biology and tropical ecology research, attracting scientists from across the globe.

Day 3 - Touchdown in the Tropics

Lunch on own to accommodate flight variations, dinner included in Cairns



After your arrival in Cairns, you'll meet your Tour Director and transfer to the hotel to get settled before our Welcome, Safety & Orientation Briefing. During this briefing, our team will walk you through the week's plans, share tips for navigating the region, and outline how we stay safe and organized throughout the program. Please note that lunch is not included today to accommodate varying arrival times. If your group arrives early enough for lunch, we'll happily guide you to a great local spot, payable on own. Later this afternoon, enjoy a relaxed excursion to Cairns Lagoon — a favorite local gathering place — where students can unwind after travel and begin soaking in the tropical atmosphere before dinner.

Accommodation: Your accommodation is at a breezy award-winning hostel in the center of Cairns' restaurant and shopping district, and only a few blocks from the waterfront. Well shaded by tropical trees and plants, the hostel features an outdoor pool, pool table, large kitchen, guest laundry and free internet and Wi-Fi. If you prefer a different lodging type, please just let us know. We are happy to cater for all group preferences.

This afternoon you can explore the nearby Esplanade — a lively stretch of waterfront with night markets, occasional performers and an expansive swimming lagoon.

Day 4 - Mangroves, Microhabitats & More

Breakfast, lunch & dinner included

Today's activities include:



World Heritage Wet Tropics: Introduction to Biodiversity - Before heading into the rainforest, students meet with an expert from the Wet Tropics Management Authority for an introduction to one of the most biologically rich regions on Earth. They learn why this landscape, shaped by shifting tectonic plates and millions of years of uninterrupted growth, is home to plants that existed alongside dinosaurs and species found nowhere else in the world. The session explores rare and threatened wildlife, the science behind protected area management, and how



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climate change impacts the Wet Tropics. Students leave with a deeper understanding of the globally significant ecosystem they are about to explore.



Mangrove Boardwalk Workshop - Students continue their learning at a coastal mangrove ecosystem, a vital nursery habitat for countless marine species. Guided by a local expert, they discover how mangroves filter salt, stabilize coastlines, and support the health of the Great Barrier Reef. The workshop highlights the unique adaptations of mangrove plants, the role these forests play in early life stages of reef organisms, and why both humans and marine environments depend on these complex systems.



Creek Cleanup Service Project - At a nearby creek that flows toward the ocean, students participate in a hands-on conservation activity focused on protecting local waterways. Equipped with gloves and bags, they help remove litter that often travels downstream into mangrove and reef ecosystems. After collecting and sorting their findings, groups tally their results and celebrate the team with the highest impact. This service project reinforces the connection between everyday actions and the health of coastal environments.



Cairns Botanic Gardens Exploration - Students explore one of the world's premier tropical botanic gardens, where they discover how plants adapt to light, climate, and pollinators in a rainforest environment. They learn how insects see colors humans cannot, how leaf veins reveal a plant's age and growth patterns, and why the famous Corpse Flower attracts thousands of visitors when it blooms. This visit highlights the surprising strategies plants use to survive in tropical ecosystems and gives students a close look at the diversity that defines northern Queensland.



Plant Evolution Trail and the Gondwanan Heritage Garden - Students continue their learning on the Plant Evolution Trail, where they trace how ancient plant lineages emerged, diversified, and persisted as continents shifted over millions of years. Along the trail, they encounter species that survived from the age of dinosaurs, early plant groups that shaped today's ecosystems, and living descendants of plants once thought extinct until rediscovered in the Daintree. In the Gondwanan Heritage Garden, students follow the story of the supercontinent's breakup and see how geological change influenced botanical evolution.

Day 5 - Creatures, Craters and Canopies

Breakfast, lunch & dinner included

Today's activities include:



Insect Master Class - This morning students travel into the Cairns Highlands for an engaging introduction to entomology led by a local insect expert. In a safe, hands-on setting, they meet some of Australia's most unusual insects and learn how structure, behavior, and adaptation shape their role in the ecosystem. The workshop can explore topics such as life cycles, reproduction, food chains, venom, and insect communication, giving students a strong foundation in biological study. Those who



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wish to participate may also handle select insects under guided supervision, making this a memorable and interactive start to the day.



Giant Trees and Crater Lake - Students visit the region's famous curtain fig tree, a towering rainforest giant that reveals how strangler figs grow and transform their host trees over time. The adventure continues at Crater Lakes National Park, where an ancient volcanic maar now forms a protected lake surrounded by diverse rainforest communities. As students walk the trail, they look for turtles, Boyd's Forest Dragons, and other endemic species while learning how rainbow fish mysteriously appeared in a lake with no connecting streams. Weather permitting, students may enjoy a refreshing swim in the clear crater waters before continuing their exploration.



Bat Hospital Visit - Students end the day at a Highlands bat hospital, where they discover the important ecological role bats play in the Wet Tropics. Here they learn how fruit bat pups are rescued and rehabilitated when their mothers are unable to care for them, and how volunteers prepare healthy bats for release back into the wild. The hospital also provides sanctuary for bats retired from zoos. Students explore how bats navigate using echolocation, why they are vital pollinators and seed dispersers, and how their unique ability to fly makes them a fascinating example of evolutionary adaptation.

Accommodation: Tonight's Eco tourist park is in the Cairns Highlands in a peaceful holiday park with a sparkling swimming pool. Cabins are single-gender with ensuite toilets. Should you desire a different style of accommodation, please let us know.

Day 6 - Creatures of the Creek and Canopy

Breakfast, lunch & dinner included

Today's activities include:



Platypus Spotting - This morning students head into the Highlands with a local guide to search for one of Australia's most extraordinary animals, the elusive platypus. Observing a platypus in its natural habitat is a rare and memorable experience, and students learn how this egg-laying mammal feeds, swims, and navigates its environment. The session highlights the unique adaptations that make the platypus an iconic symbol of Australia and introduces students to the challenges of studying such a secretive species in the wild.



Transects and Vegetation Profiles - Students then learn how biologists use transects and quadrats to study ecosystems and collect scientific data. Working in small groups, they practice identifying vegetation types, assessing canopy structure, and recording ground cover before sketching their own vegetation profiles. Each student receives field guides to the animals and plants of the Wet Tropics, providing helpful background on regional and endemic species and supporting their fieldwork throughout the day.



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Leaf Classification Workshop - Next, students participate in a hands-on leaf classification activity designed to build skills in identifying rainforest species. They learn how leaf shape, size, texture, and arrangement reveal important clues about the tree it belongs to and the type of rainforest it grows in. These skills help students better understand the diversity of rainforest communities and strengthen their ability to classify vegetation in the field. By the end of the activity, students can confidently use leaf traits as reliable indicators of ecosystem type and plant identity.



Biodiversity Study Site - Students travel to a private 164-acre nature reserve featuring a mosaic of ecosystems, including riparian rainforest, eucalyptus woodlands, melaleuca wetlands, billabongs, and transitional ecotones. This site, used by the BBC for filming, offers an ideal setting for comparing ecosystem structures within a short distance. Hosting the group is an expert entomologist who has discovered multiple new glowworm species and collaborated with naturalist David Attenborough. Students explore how different habitats support unique communities and deepen their understanding of biodiversity in the Wet Tropics.



Bush Camping on Nature Reserve - Students camp on the property near gentle Rifle Creek, enjoying an authentic but comfortable bush experience. The campsite includes toilets, showers, a fire circle, a swimming hole, and fresh locally grown food prepared on site. Tents and sleeping pads are provided, giving students a safe and memorable night immersed in the Australian landscape. Evening downtime around the fire offers space to relax, share highlights from the day, and connect with the rhythms of the rainforest. It's a simple, peaceful overnight that lets students experience the Wet Tropics in a way few visitors ever do.



Evening Insect Activity and Light Trap Workshop - In the evening students join their entomologist guide for a hands-on insect session that builds on the day's fieldwork. They review basic insect biology, examine local species, and discuss the adaptations that help insects survive in rainforest environments. Students then learn how to construct simple insect light traps, a classic field method used to attract and study nocturnal insects. This activity gives students practical experience with scientific tools and sets the stage for observing nighttime biodiversity around the campsite.

Day 7 - Voices, Culture and the Ancient Rainforest

Breakfast, lunch & dinner included

Today's activities include:



Environmental Debate - This morning students participate in an environmental debate focused on a real development proposal in Cairns. After reviewing background information and learning about the projected economic, social, and ecological impacts, students take on the roles of community members and stakeholders. They evaluate sustainability efforts, weigh competing priorities, and argue for or against the development. This interactive activity helps students understand how environmental decisions are made and why conservation issues often spark national attention.



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Rainforest Walk with Indigenous Guide - Students then explore Mossman Gorge with an Indigenous guide from the Kuku Yalanji community. After a traditional ceremony, they walk rainforest paths and learn how Aboriginal people navigated dense forest, built shelter, and used native plants for food, tools, medicine, and protection. As the guide shares cultural stories, students discover how seasons shaped daily life, how responsibilities were divided between men and women, and how fire and fishing techniques were adapted to rainforest conditions. The experience ends with a taste of billy tea and wattle seed damper cooked over the fire and topped with jam made from rainforest berries.



Daintree Rainforest and Swim - Students continue into the heart of the Daintree Rainforest, one of the most significant biological regions in Australia. Here they learn why this area contains the world's highest concentration of primitive flowering plant families, Australia's rarest mammal, and numerous bird species found nowhere else on Earth. After exploring the forest, students enjoy a refreshing swim in a clear, designated "croc free" rainforest swimming hole. This stop gives students time to relax, take in the surrounding forest, and appreciate the incredible biodiversity they have been studying throughout the day.



Daintree Rainforest Observatory and Research Station - Students arrive at the Daintree Rainforest Observatory, an eco-monitoring site and research station located in one of the most biodiverse areas in Australia. After a safety orientation, they participate in a presentation about the significance of the Daintree and the research conducted at the station. The session highlights how scientists study rainforest dynamics, climate impacts, and long-term ecosystem change. Students gain insight into how data collected here contributes to global research on tropical forests and environmental resilience.



Nocturnal Wildlife Spotlighting - In the evening students join their guide for a spotlighting walk to observe the rainforest's crepuscular and nocturnal wildlife. As the forest comes alive after sunset, students learn how to look for movement, eye shine, and feeding signs. They may spot species such as the Northern Brown Bandicoot, Bennett's Tree Kangaroo, or the striped possum leaping among the giant fan palms. This nighttime activity offers a memorable look at the hidden world of the Daintree after dark.

Day 8 - JCU Research Station, Canopy Crane & Reef Presentation

Breakfast, lunch & dinner included

Today's activities include:



James Cook University Canopy Crane - Students begin the day at the JCU research station, home to one of only three tropical canopy cranes in the world. After a safety orientation and an introduction to the significance of the surrounding rainforest, students step into a suspended gondola with the crane operator. The crane rises above the canopy and rotates 360 degrees, giving students an extraordinary view of one hectare of rainforest and the biodiversity that earned the Daintree its UNESCO World Heritage status. This experience offers a rare perspective on canopy-level



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research and the methods scientists use to study rainforest structure and species interactions. **IMPORTANT:** *Students must be at least 16 years old; alternative activities are provided for younger students. Activity operates only Monday–Friday.*



Service Project and Data Collection - When not in the crane, students participate in a meaningful service project supporting reforestation efforts at the research station. They learn how biologists assess tree health using tools such as clinometers and DBH tapes, and practice identifying pioneer species, signs of herbivory, and indicators of growth. Students contribute their measurements to ongoing research tracking the success of reforestation plantings. Surrounding trails allow students to compare primary rainforest, secondary growth, and reforested areas across different elevations, offering a hands-on look at succession and ecosystem change.



Future of the Reef Presentation - Back in Cairns, students attend an evening presentation led by a marine naturalist on the future of the Great Barrier Reef. They learn the current scientific understanding of reef health, including the realities of bleaching, climate impacts, and tourism pressures. The session introduces the four major threats facing the reef and explains how researchers are exploring “assisted evolution” by breeding corals with greater heat tolerance. Students finish with ten practical actions they can take to support reef conservation and continue advocating for ocean health when they return home.

Day 9 - Coral, Creatures and Citizen Science

Breakfast, lunch & dinner included

Today’s activities include:



Ferry Ride - Students travel by ferry to Fitzroy Island, a pristine destination surrounded by a fringing coral reef that forms part of the inner Great Barrier Reef. This sheltered environment supports a remarkable variety of marine life, including colorful corals, parrotfish, lionfish, turtles, cuttlefish, rays, and giant clams. The ride offers a first look at the island’s clear waters and vibrant reef ecosystem. As the ferry approaches the island, students can see how Fitzroy sits right on the edge of the Great Barrier Reef, making it an ideal base for exploring one of the world’s most important marine environments.



Guided Snorkeling - With use of snorkel gear, students can step directly into the water to explore the reef that surrounds the island. A marine naturalist leads the group to examples of biodiversity, parasitism, commensalism, and other ecological relationships visible beneath the surface. Students also learn about coral biology, endangered species, and coral diseases, gaining a deeper understanding of the challenges facing reef ecosystems. Throughout the session, students see firsthand how interconnected reef organisms are and why even small environmental changes can ripple through the entire ecosystem.



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CoralWatch Data Collection - In the afternoon students participate in CoralWatch, a citizen-science project addressing concerns about climate change and coral bleaching. Working in pairs, they identify coral types, match colors to a waterproof chart, and record their observations. Their data is submitted to CoralWatch scientists at the University of Queensland, contributing to long-term global monitoring of coral health. The group receives a graph of their results, showing how their findings fit into worldwide bleaching trends. This activity helps students understand how standardized field methods allow scientists to compare coral conditions across different regions of the Great Barrier Reef and track changes over time.



Turtle Rehabilitation Centre Visit - Students also visit the island's Turtle Rehabilitation Centre, where volunteers care for sick and injured sea turtles until they are ready to return to the ocean. The visit highlights the threats facing marine turtles and the conservation work required to protect them. Students learn how injuries from boats, entanglement, and pollution affect turtle survival, and they see firsthand how rehabilitation programs contribute to long-term species protection along the Great Barrier Reef.



Water Quality Testing - To finish the day, students learn how to measure water quality using chemical tests. These results are added to a long-term dataset maintained by Australian partners, helping track changes in water conditions around Fitzroy Island over time. Students gain insight into how water clarity, nutrient levels, and pH influence coral health and why monitoring these factors is essential for understanding reef resilience over time.

Day 10 - Into the Blue: Outer Reef Discovery

Breakfast, lunch & dinner included

Today's activities include:



Boat Ride to the Reef - Students begin the day aboard an air-conditioned catamaran bound for the outer Great Barrier Reef, a UNESCO World Heritage site and one of the most biodiverse marine environments on Earth. During the ride, a marine biologist introduces the reef's ecology, explains what students are likely to see, and provides an overview of the **Eye on the Reef** program. Students learn how rapid monitoring surveys help scientists track reef health and respond to environmental change. This briefing sets the stage for a full day of hands-on marine science.



Snorkeling and Data Collection - Upon arrival, the group docks at a floating pontoon where the reef's underwater world comes into view. During a guided snorkel tour, students explore vibrant hard and soft corals, observe turtles gliding through the water, and encounter fish species such as butterflyfish, giant Maori wrasse, parrotfish, and the iconic clownfish. The marine biologist highlights key ecological relationships and points out features that reveal the reef's overall health. This snorkel session gives students an up-close look at the complexity and beauty of the outer reef ecosystem.



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Data Collection and Service - Next, students receive in-water training on how to conduct the Great Barrier Reef Marine Park Authority's Rapid Monitoring Survey for the **Eye on the Reef** program. With guidance, they practice identifying reef organisms, estimating benthic cover, and recognizing signs of coral bleaching or coral predators. During a timed snorkel session, students record their observations on waterproof slates and contribute their findings to GBRMPA's central reporting system. Their data supports long-term sustainability planning for the Great Barrier Reef and gives students firsthand experience with scientific monitoring techniques.

Other Activities - Students also have access to additional reef experiences from the pontoon, including semi-submarine and glass-bottom boat tours, an underwater observatory, and a marine life touch tank. Some activities may require an additional fee. The double-story pontoon features a long slide that ends directly in the reef's clear waters, adding a fun break between science sessions. A tropical buffet lunch is served on board, giving students time to relax and refuel.

Scuba Diving is available, at extra cost. Please let us know if your group is certified and would like to participate.

Day 11 - Inside Australia's Leading Science Hub

Breakfast, lunch & dinner included

Today's activities include:



James Cook University Biology Workshop and Mangrove Studies: Biology Seminar

- Students begin the day at James Cook University, a leading institution for environmental and marine science, for a biology-focused workshop. JCU is Australia's highest ranked university in environmental science and is internationally recognized for its marine biology programs. During an interactive seminar, students engage with world-leading researchers and learn how cutting-edge equipment is used to study tropical ecosystems. The session offers a rare opportunity to experience university-level science in a hands-on, accessible format.



JCU Marine Labs and Aquarium - Students then explore JCU's renowned marine labs, a favorite location for film crews due to their exceptional facilities for observing marine life. Sophisticated cameras and monitoring systems allow students to watch animal behavior up close, including species that are difficult to study in the wild. The university's unique circular tank simulates ocean currents and supports detailed jellyfish research. Students meet staff working at the forefront of marine science, learn how venom is safely collected from fish, and hear about recent breakthroughs in anti-venom development.



Venomous Creatures and Mangrove Biome - In this session students encounter a range of unusual and venomous creatures, including seahorses, baby crocodiles, cone shells, the lethal Chironex jellyfish, and the extremely rare lungfish, found in captivity only at JCU. They also see species that inspired characters in Finding Nemo. Students investigate a working model of a mangrove biome, learning how mangroves filter water, stabilize coastlines, and play a vital role in climate change mitigation. This model helps students understand how changes in salinity, water quality, and sea level affect coastal ecosystems.



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Expert Speakers - Students may hear from leading experts such as venomologist Dr. Jamie Seymour, whose research on jellyfish stings has reshaped scientific understanding, or Richard Fitzpatrick, an Emmy Award-winning cinematographer and marine biologist known for his work with the BBC, National Geographic, and Discovery Channel. These speakers share insights into research, wildlife filmmaking, and the challenges of studying dangerous marine species. Their presentations give students a behind-the-scenes look at how scientific discoveries are made and how researchers communicate complex marine science to global audiences.



World-Class JCU Herbarium - The day concludes with a visit to JCU's Tropical Herbarium, home to more than 160,000 preserved plant specimens. Students explore collections used for research and conservation, including historic specimens gathered by Sir Joseph Banks during Captain Cook's first voyage to Australia. They visit the Spirit Room, learn how specimens are processed and curated, and enjoy a hands-on area designed for plant enthusiasts. This visit highlights the importance of herbariums in documenting biodiversity and supporting long-term ecological research.



Reflection Time: Looking Back on the Journey - On your final night in Australia, students gather for a relaxed reflection session to look back on the week's experiences. From coral surveys on the Great Barrier Reef to hands-on research at James Cook University, each day has offered new insights into how ecosystems function and why conservation matters. Small-group discussions encourage students to share what surprised them, what challenged them, and what inspired them most. It's a meaningful way to close the week and prepare for the journey home.



Cairns Night Markets - In the evening, students can explore the Cairns Night Markets, a lively waterfront marketplace filled with local crafts, souvenirs, and small food stalls. The atmosphere is relaxed and colorful, with vendors offering handmade goods, Indigenous artwork, tropical treats, and quirky Australian keepsakes. It's a fun way for students to experience a bit of Cairns' local culture, pick up final souvenirs, and enjoy the energy of the city before heading home. The markets are easy to navigate in small groups and provide a light, enjoyable end to the day.

Day 12 - Last Day, Big Smiles, and Departure

Breakfast included; departure day

After breakfast this morning, students generally have free time for last-minute shopping, souvenir hunting, or a relaxed walk along the Cairns waterfront. If your group has a later flight, you can choose one of the following optional morning activities before heading to the airport.



Optional: Urban Challenge - If you have an afternoon departure, students may spend the morning participating in the Urban Challenge. The Urban Challenge is a lively team-building activity that introduces students to the history, nature, art, and culture of Cairns. Small groups race against the clock in a treasure-hunt style competition through the central business district, solving clues and completing tasks along the way. It's a popular choice for students, and the winning team earns a fun prize to celebrate their victory.



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Optional: Community Service Project - Students may also choose to participate in a meaningful community service project supporting individuals who travel from remote Indigenous communities to Cairns for medical care. Many arrive with very few personal belongings, so students learn to make simple bags using upcycled materials and assemble hygiene kits with essential items. The project is hands-on, easy for all skill levels, and offers a chance to give back to the local community in a thoughtful, practical way. The session lasts about an hour and fifteen minutes and reinforces the importance of being a responsible and sustainable traveler.

As your time in Cairns comes to a close, we hope you leave feeling inspired by the ecosystems you explored, the scientists you met, and the discoveries you made throughout your journey. From coral surveys on the Great Barrier Reef to hands-on biology workshops at James Cook University, each experience was designed to spark curiosity, deepen understanding, and build confidence in the world of environmental science. With new knowledge, new friendships, and a greater appreciation for Australia's remarkable biodiversity, you begin your journey home carrying memories that will stay with you long after the trip ends. Depending on your flight schedule, you'll transfer to the airport and check in for your return trip, ready for whatever adventure comes next.

Goodbye, Australia!



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Q & A

What kind of food will we have?

We understand how important food is to young people – and heaps of it! A typical breakfast will be a continental breakfast including juices, cereals, toast & jams (and optional vegemite!) and a typical packed lunch will be a meat and salad, sandwich, drink, chips, biscuits and a piece of fresh fruit. Café lunches and dinners will vary, but we place a big emphasis on variety and healthful options.

Where will we sleep?

We choose accommodation for our educational groups that is safe and clean. Options range from sleeping in tents at well-appointed campgrounds to budget hotels and youth hostels, to moderate and luxury hotels – selected according to your budget and itinerary. Whenever possible, we use locally-owned accommodation options to keep income in the community.

What about sharks or jellyfish?

The ocean is home to sharks, but the ones you may encounter at the Great Barrier Reef are small and pose little threat to swimmers. In fact, divers and snorkelers often consider themselves lucky to spot one of these shy, magnificent creatures. Australia's famed Great White sharks prefer cold water, and therefore are not found at the Great Barrier Reef.

Stingers, also known as box jellyfish, breed in estuaries and are rare at The Great Barrier Reef. Therefore, they do not pose a big threat to snorkelers or divers. Stingers are only a consideration on the beaches between November and April, and most of the local beaches have stinger nets so that people may still swim.



What qualifications do your guides have?

Our Cairns guides have a government-issued "Blue Card" that is only given after an extensive background check and allows them the ability to work with children. Each guide also has a Senior First Aid and CPR certification and government-issued Driver's Authority.

Many of our educational adventure guides have higher degrees in environmental science, marine biology or experiential education, and there is one thing which unites them: a love for teaching young people about the outdoors. We choose guides with extensive experience having worked with young people. We will take into consideration your educational objectives and assign one of our guides who will be the best match for your group.



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Weather in Cairns, Australia

Dry Season (May–October): Sunny, Comfortable, and Ideal for Outdoor Exploration

- › Temperature: 75–82°F (24–28°C)
- › Conditions: Warm days, low humidity, clear skies, and very little rain.
- › Highlights: This is Cairns' most comfortable stretch of the year. Reef visibility is excellent, seas are calm, and hiking trails in the rainforest and Tablelands are at their best. Whale season peaks June–September, adding a special bonus for marine science days.
- › Packing Tips: Light layers, sun protection, a hat, and a light jacket for cooler evenings (especially June–August).

Wet Season (November–April): Hot, Humid, and Lush

- › Temperature: 84–89°F (29–31°C)
- › Conditions: Hot, humid days with dramatic afternoon downpours; landscapes become vibrant and green.
- › Highlights: Waterfalls surge, the rainforest is at its most lush, and warm ocean temperatures make swimming comfortable. This season overlaps with marine stinger season and cyclone season, but storms typically pass quickly. Coral spawning also occurs during this period - a major ecological event.
- › Packing Tips: Breathable clothing, a waterproof layer, sturdy sandals or shoes, and a refillable water bottle.

Shoulder Seasons (March–May & September–November): Warm & Balanced

- › Temperature: 78–86°F (26–30°C)
- › Conditions: Warm days with a mix of sunshine and occasional showers; humidity begins to shift between seasons.
- › Highlights: Fewer crowds, excellent reef conditions, and comfortable weather for both marine and rainforest activities. These months often offer the best balance of value and comfort.
- › Packing Tips: Lightweight clothing, sun protection, and a small rain jacket for passing showers.

Winter (June–August): Mild, Clear, and Perfect for Science Days

- › Temperature: 72–77°F (22–25°C)
- › Conditions: Warm days, cooler evenings, low humidity, and very little rainfall.
- › Highlights: Ideal for full-day excursions - reef trips, mangrove studies, and rainforest hikes all benefit from the mild temperatures. This is Cairns' driest and most stable weather window.
- › Packing Tips: Light layers for daytime and a warmer layer for evenings.

Culture & Courtesy in Cairns

Language & Courtesy - Use friendly greetings ("Hello," "Hi," or "G'day") and speak with a warm, relaxed tone. Australians appreciate politeness, patience, and simple thank-yous when interacting with shopkeepers or guides.

Pace of Life - Expect an easygoing rhythm - Cairns moves at a relaxed, tropical pace. Conversations linger, schedules are flexible, and people value a calm, unhurried approach to daily life.

Food & Dining - Enjoy fresh seafood, tropical fruits, and multicultural cuisine. Dining is casual; wait to be seated when indicated, be patient with service, and avoid rushing through meals.

Respect for Nature & Heritage - Stay on marked paths, follow reef and rainforest guidelines, and keep noise low in natural areas. Be mindful when photographing wildlife and respect cultural sites connected to Traditional Owners.

Student Engagement - Curiosity is welcomed; guides and researchers enjoy answering questions. Dress modestly and comfortably for science activities, cultural visits, and time spent in Indigenous-led spaces.

Local Culture & Traditions - Cairns has a strong connection to Aboriginal and Torres Strait Islander cultures. You may see artwork, hear stories, or learn about Country; approach these moments with respect and openness.



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Taste of Cairns – Local Favorites to Try

Cairns blends tropical Australian flavors with easy, student-friendly options found throughout the city. Whether grabbing a quick bite between activities or exploring during free time, students will find plenty of iconic and easy-to-love choices across Cairns' waterfront and night markets.

1. **Fresh Tropical Fruit** – Mango, pineapple, and papaya are local staples, often sold chilled and ready to eat.
2. **Fish & Chips** – A classic Australian favorite, served everywhere from casual cafés to waterfront stalls.
3. **Barramundi** – A regional fish, mild and flaky, often grilled or served with citrus and herbs.
4. **Prawn Rolls** – Light, fresh, and perfect for warm weather; a popular coastal snack.
5. **Cairns Night Markets Treats** – Smoothies, bubble tea, crêpes, and international street foods.
6. **Meat Pies** – A beloved Australian comfort food, easy to find and great for a quick bite.
7. **Classic Burgers & Fries** – Familiar, reliable, and available everywhere for groups.

Entry Requirements for Travel to Australia

Entry requirements for entering Australia vary by nationality, and all travelers are responsible for checking the most current information during planning and before departure. The guidelines below are accurate at the time of writing but are subject to change without notice. Always verify requirements through your government's travel authority and the official Australian Department of Home Affairs website prior to travel.

General Requirements (*All International Travelers*)

- ✓ A valid passport
- ✓ Proof of onward or return travel
- ✓ Compliance with Australian Border Force screening
- ✓ No active travel restrictions or inadmissibility flags

Travelers from the USA, Canada, and the UK

- ✓ Must obtain an ETA (Electronic Travel Authority) or eVisitor authorization prior to travel
- ✓ Passport must be valid for the duration of stay (six-month validity recommended)
- ✓ ETA/eVisitor allows short stays (typically up to 90 days)
- ✓ Travelers may be asked to show accommodation details or program information

ETA (Electronic Travel Authority)

- ✓ Common for travelers from the USA and Canada
- ✓ Applied for online; usually approved quickly
- ✓ Linked electronically to the passport

eVisitor Visa (Subclass 651)

- ✓ Common for travelers from the UK
- ✓ Free to apply; submitted online
- ✓ Valid for short tourism or study visits

Important Notes

- Entry requirements can change; travelers must check for updates before departure.
- Some nationalities may require additional documentation or interviews.
- Schools traveling as a group should ensure all passports meet validity requirements.
- Australia enforces strict biosecurity rules - declare all food, plant materials, and outdoor gear used in natural environments.



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BIO-TREKS: STEM ECOLOGY SERIES

TROPICAL ECOLOGY & THE GREAT BARRIER REEF

Minimum Booking Numbers: 16 students

What's Included:

- ✓ Roundtrip international flights
- ✓ 9-nights' accommodation: 6-nights at a central Cairns hostel (4-6 share rooms), 1-night Highlands Tourist park (4-share dorm-style rooms), 1-night bush camping (tents), 1-night JCU Research Station cabins (4-share single gender rooms)
- ✓ Airport transfers & group transportation to activities
- ✓ Breakfasts, lunches & dinners daily starting with dinner on your night of arrival and ending with breakfast on your day of departure (dependent upon flight times)
- ✓ The Esplanade: Cairns Lagoon Excursion & Cairns Night Market Exploration
- ✓ Biodiversity Introduction & Mangrove Boardwalk Workshop
- ✓ **SERVICE PROJECTS:** Creek Clean-Up & Conservation, James Cook University Research Station
- ✓ Botanic Gardens with a Botanist and the Plant Evolution Trail, The Gondwanan Heritage Garden
- ✓ Insect Biology Workshop in Cairns Highlands
- ✓ Crater Lakes National Park: Giant Trees & Crater Lake Hike
- ✓ Bat Hospital & Sanctuary
- ✓ Platypus Spotting Adventure
- ✓ Wet Tropics Fieldwork: Transects & Vegetation Profiles + Leaf Classification Study
- ✓ Insect Activity & Making Light Traps
- ✓ Environmental Debate
- ✓ Rainforest Walk with an Indigenous Guide
- ✓ Daintree Rainforest Observatory & Research Station; Daintree Swim
- ✓ Nocturnal Wildlife Spotting Walk
- ✓ "Future of the Reef" Marine Biology Great Barrier Reef Talk
- ✓ Great Barrier Reef 1: Guided Snorkeling, Marine Science & Coral Watch Data Collection
- ✓ Turtle Rehabilitation Center
- ✓ Water Quality Testing
- ✓ Great Barrier Reef 2: Snorkeling / Scuba & Fish Data Collection, Reef Data Collection, Oceanography & Service
- ✓ James Cook University: Canopy Crane (minimum age applies), Biology Workshop, Marine Labs & Aquarium, Venomous Creatures, Mangrove Biome & Australia Tropical Herbarium
- ✓ **OPTIONAL:** Urban Challenge or Community **SERVICE PROJECT**
- ✓ Marine park taxes and levies
- ✓ Personal Tour Director
- ✓ 24-hour emergency cover

What's Not Included:

- ☒ Fully comprehensive insurance (**mandatory**)
- ☒ Meals on travel days; snacks or beverages other than at designated mealtimes; meal selections other than ones provided for the entire group (we are generally able to cater for allergies, vegetarians, halal and in some cases vegan)
- ☒ Transfers to/from home airport, nor transportation for activities not shown in the itinerary
- ☒ Baggage costs, pay directly to airline if required
- ☒ Cost of visas, visa waivers, passports or other legal requirements for entry/return
- ☒ Cost of inoculations or medication required for travel
- ☒ Sightseeing / Entertainment / Transport not shown in Itinerary
- ☒ Gratuities – drivers, hotel services, area guides, tour director
- ☒ Credit card fees if individuals wish to pay via credit card instead of ACH
- ☒ Additional taxes, fuel surcharges or fees levied by governments / suppliers

As always, our staff are available to you to answer any questions you may have regarding programming.
If we may serve you in any way, please do not hesitate to contact us.



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