



BioTrek



Visitors Guide

Cal Poly Pomona faculty and staff developed BioTrek out of concern for today's threat to plant and animal species and the viability of the biosphere.

This education-based project reaches out to K-12 and college students, government leaders, and other community members. BioTrek emphasizes the need to share knowledge, values and behaviors that support biological sustainability on a finite Earth. The three learning centers of BioTrek include the Rain Bird Ethnobotany Learning Center, the Rain Bird Rainforest Learning Center, and the Rain Bird Aquatic Biology Learning Center.



The Rain Bird Ethnobotany Learning Center, an outdoor native garden, shows the connections and contrasts between the rainforest and the diverse habitats of California.

The Rain Bird Rainforest Learning Center greenhouse contains nearly 3,000 square feet of tropical plants and animals. It allow visitors to experience, firsthand, the wonders of rainforest species that have adapted to the diverse habitats found in tropical environments of the world.

The Rain Bird Aquatic Biology Learning Center showcases the role of fish and other aquatic species in the tropical flooded forest and gives an in-depth look at the mangrove and coral reef environments. The Center also features the freshwater streams and kelp forests of Southern California. Research on threatened or endangered native fish is being performed by Cal Poly Pomona faculty.

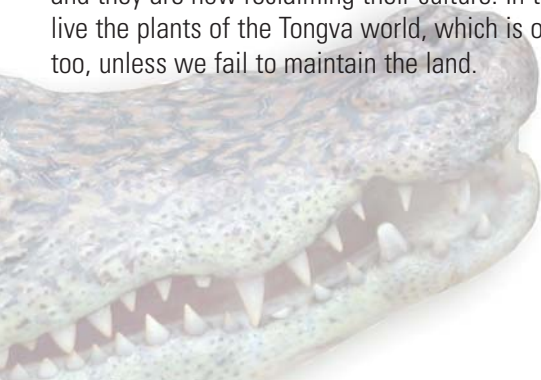


Come walk the paths of Aasuíngna, the “place of the plants.” The Tongva have no word in their language for “garden”—before European settlement, their entire world might have seemed to us a garden, and the plants their pantry, their construction yard, their fabric store, and their medicine cabinet.



Ethnobotany is the study of how different cultures use plants—for housing, tools, clothing, medicine, and ceremony. All cultures have ethnobotany, but ethnobotanists work mainly with native peoples, because their unique knowledge is most likely to be lost. Around the world, native peoples and the plants that they have relied upon are disappearing at an alarming rate. It is important to preserve cultures as well as habitats.

The Tongva are the indigenous people of the Los Angeles Basin. Before colonization by the Spanish, the Tongva “maintained the land,” creating conditions of great biological diversity and abundant food, including acorns, other plant foods, seafood, and game animals. Called “Gabrielino” by the Spanish at the San Gabriel Mission, they were introduced to European culture and disease. In the years afterwards, their culture declined and then collapsed. The abundance of the Tongva world became a mass of people of many cultures that now imports almost all of its food. But the Tongva remain, and they are now reclaiming their culture. In this garden live the plants of the Tongva world, which is our world too, unless we fail to maintain the land.





Tropical rainforests are the oldest, richest, and most



complex ecosystems on Earth, and are home to half the world's plant and animal

species. Experience the rainforest, and discover its diversity and importance. Smell the aromatic leaves. Feel the humidity-softened air. Discover which woods, spices, nuts, fruits, and other products come from rainforests. Learn how rainforests differ from other ecosystems, what special plant adaptations enable them to survive nutrient-poor soils, and how flowers are pollinated and seeds dispersed. Compare the tropical rainforest species from Africa, Asia, Australasia, and the Americas. Explore what environmental influences might have caused similar plant adaptations in species from different continents.

Find out which organisms live in rainforest soil. See and hold Madagascar hissing cockroaches and tropical stick insects. Learn how the many layers of tree canopies provide a multitude of different homes for animals, and how some spend nearly all their lives in the canopy. Discover that rainforest inhabitants rely on one another for food and shelter.

Visit our Caiman yacare (a South American relative of crocodiles and alligators) and watch it swim or bask on the bank of its grotto. Meet the tropical turtles as they swim in the adjacent lagoon.

Learn about the importance of the tropical rainforest to us all: supplying the world with oxygen, retaining carbon, and influencing worldwide climate patterns. Understand what you can do personally to help conserve our forests for future generations.

The aquatic environment covers the vast majority of our planet and is home to most of our biodiversity.

You can see and compare the tropical Amazonian rainforest river as it floods the forest floor, the tropical mangrove forest, a salt water tropical coral reef, a California coastal kelp forest and a California freshwater stream.



Learn about how we investigate the biology of these wonderful species through the research projects of Cal Poly Pomona students and faculty. Listen to the sounds of fishes, and learn about how they produce them and what they mean. See the electricity produced by fishes, and learn about how and why so many fishes use this strange form of communication.

Observe the variety of tropical coral reef species with their dazzling color patterns, and learn how they use their beauty to survive. You could come face-to-face with the South American lungfish, as it uses its gills in the water and breaths air with its lungs. You might even meet the strange four-eyed fish from Latin America that lives in the mangrove swamps.

Learn about our "Ferguson Flume," an experimental freshwater stream, and how it is used to answer questions about what our native fishes need to survive. These answers help us to restore and conserve our degraded Southern California stream habitat.

Conserving our aquatic species and their habitat is important. You can help by learning more.



This mural is located in the Rain Bird Ethnobotany Learning Center and is an illustration of Gabrielino/Tongva culture and life. Conceived, hand-painted, and fired by artist Dixie Giering, its tiles depict Tongva use of resources that came from their intimate knowledge of and spiritual relationship with the land. We can learn much from their respect, care, and wise use of natural resources.



Supporting BioTrek

Support from our major contributors was critical in making BioTrek a reality. We applaud the visionary spirit of the Rain Bird Corporation, the Ernest Prete Jr. Foundation, Boeing, and the Rose Hills Foundation.

You, too, can support BioTrek. One way is to fund an endowment for field trips that bring public school classes to BioTrek. Another is to volunteer as a docent who conducts tours of the BioTrek Learning Centers. Original research is vital part of our mission. Individuals and organizations may find a variety of ways to become involved with faculty and student research projects.

Rainforests are disappearing around the world at an alarming rate. Preserving these resources is the message we are communicating to many thousands of people each year. This is made possible through your support.

Please contact us at 909/869-5070 for information on how you can become a part of the BioTrek team. Your involvement is critical to maintaining the quality of the educational experiences.



CAL POLY POMONA

College of Science

California State Polytechnic University, Pomona

Pomona, CA 91768-4039

Reservations and tour information 909/869-6701

www.csupomona.edu/biotrek

Web Site endowed by Ernest Prete Jr. Foundation

DIRECTIONS TO CAL POLY POMONA, FROM...

210 Fwy: Merge onto 57 Fwy South. Exit Temple Ave., turn right. Turn right on South Campus Dr., left on Kellogg Dr., & follow signs to Parking Booth.

10 Fwy: Exit Kellogg Dr., & follow signs to Parking Booth.

60 Fwy Eastbound & 57 Fwy Northbound: Merge onto 57 Fwy North. Exit Temple Ave., turn left. Turn right on South Campus Dr., left on Kellogg Dr., & follow signs to Parking Booth.

60 Fwy Westbound: Exit Diamond Bar Blvd, turn right. Turn left on Temple Ave., turn right on South Campus Dr., then turn left on Kellogg Dr., & follow signs to Parking Booth.

PARKING INFORMATION

Cal Poly Pomona visitors may purchase the \$4 daily parking permit at the Parking Booth. If you have reserved a BioTrek tour, please follow the instructions sent to you. On arriving at the Parking Booth, tell the attendant you are here for a BioTrek tour and ask for directions to the facilities and adjacent parking lots.

PLEASE DO NOT HANDLE THE PLANTS.

Never put any plant or plant part in your mouth. Some plants are poisonous and may cause adverse reactions to you.

The information provided about BioTrek plants is historical and for academic purposes only, and it should not be interpreted as a recommendation for use or medical treatment. Picking or gathering fruits, flowers or other plant parts is prohibited.

During your visit you may encounter loose slippery surfaces, falling branches, and plants with thorns. Please stay on the paths at all times, do not climb on rocks or plants, and exercise caution around the stream, pond, and bridges.