

**SOUTHEAST ASIA ENVIRONMENTS:
THE MEKONG RIVER PROJECT**

Meeting Place: Los Angeles, CA
(time and location to be determined)

November 2 – December 13, 2010

12 semester system units (equivalent to 18 quarter system units)

Program Fee \$ 2695 plus \$150 Application Fee

Thank you for your interest in our newest Southeast Asia project, a journey up the Mekong River. This fall we will travel overland and by boat through the upper river basin in Thailand, Laos, Cambodia and Vietnam, traversing through some of the richest ecological and cultural riparian habitats in the world. Little known until recent times, and in most places sparsely populated, the Mekong River offers a dynamic and fascinating field study of real-life conservation concerns in a unique river environment facing rapid change.

BACKGROUND INFORMATION

From its Himalayan origins, the Mekong – ‘Mother River’ – flows the length of Southeast Asia, passing through Thailand, Laos, Cambodia, and Vietnam. By the time it enters the South China Sea, the Mekong has drawn water from landscapes that rank among our planet’s most fascinating and diverse. Its tributary headwater forests, set deep in the tropics, are among the most species-rich on earth. A recent report by World Wildlife Fund, *First Contact in the Greater Mekong*, reports that more than a thousand new species were described here during the decade 1997-2007. The tally includes more than 150 reptiles and amphibians, 15 mammals and 4 birds. Today, the Greater Mekong Region is considered to be one of Earth’s most threatened ‘conservation hotspots.’

With turbid waters and complex flow patterns, the Mekong River is especially rich in fish species. Some of the very largest freshwater fish survive here, including the Mekong Giant Catfish and the little known Chao Phraya Stingray. In the past decade, more than 250 species of fish, new to science, have been discovered in the Mekong River and its tributaries.

Ebbing and flooding over the course of a year, the Mekong has a profound effect on the livelihoods of millions of people who harvest migratory fish, farm soils freshly deposited each year, and ply its waters for transport. In places like Sipandon, Laos and the Mekong Delta of Vietnam, the degree of human adaptiveness to the riparian landscape is mind-boggling. With only local modifications to the environment, the people of these areas have evolved elaborate systems of aquaculture and agro-forestry that are simply ingenious, robust and highly diversified. In the upper catchment area, mountain-dwelling ethnic minority groups still practice traditional lifestyles, raising crops with human and animal energy-input, and supplementing their diets with amphibians and insects gathered from the forest.

Current threats to the Mekong ecosystem result largely from top-down, centrally-planned initiatives, conceived by outsiders, to drive rapid economic development in the region. For example, efforts by the Chinese industrial complex to dam, dredge, and channelize the river threaten the region’s ecological stability and cultural integrity. Our field study is a timely one, enabling us to review the complex history of the Mekong, discover first hand the river current’s state and discuss the politics and ecological concerns affecting the region.

PROGRAM GOALS AND ACTIVITIES

Team members will spend six weeks exploring the Lower Mekong river ecosystem – that stretch of river (and its tributaries) that reaches from the ocean more than 1000 miles up to the Chinese border. Moving upriver, we will visit fieldstudy sites within the countries of Vietnam, Cambodia, Laos and Thailand chosen because they are ecologically important, or especially intriguing. We will combine overland and boat travel, as well as trek on foot into several remote backcountry areas. Overnight arrangements include camping, simple guesthouse accommodations, village home stays and national park bungalows. We will spend a few nights as well in the cities of Phnom Penh (Cambodia) and Chiangmai (Thailand) as well as some smaller towns like Savannakhet (Laos) and Siem Reap (Cambodia). But most of our time will be in national parks and less-populated rural areas. One bonus of our program is a special, 3-day study taking us to the globally significant, ancient temple complex of Angkor Wat, Cambodia.

Three big ecological questions will focus and motivate the field activities in each place we visit. First, what is the natural history of the place and what ecological processes are most important now? Second, who are the people that live here today, and how long have they been here? Are they well adapted to the place? If so, how has the environment shaped their traditions and culture? If not, what is the disconnection, and how did it come about? Finally, we will ask whether the natural environment is being managed intelligently for the long term? Quite often, we will see evidence that it is not. Wherever possible, in consultation with the local people, we will consider the value of various ecosystem management alternatives.

Please note that no prior research experience is required on this program; All necessary skills to conduct our ecological and cultural fieldwork will be taught onsite, enabling all of us to participate fully.

Throughout the course, we will put a lot of emphasis on observing things for ourselves. But we also plan to exchange ideas with – and gain input from – local experts and the inhabitants of villages that depend on the Mekong for their livelihood. Since this is our first time to visit several of these field sites as group, we have the opportunity on this program to initiate some interesting long-term studies. With this in mind, we hope to publish our findings online in a format that will be useful for future investigators.

Our Mekong River field studies will begin at Cat Tien National Park, in the headwaters of a tributary river. Cat Tien, one of Vietnam's finest protected areas, is an important site for biodiversity conservation. Its monsoon forests support Vietnam's last remaining populations of Sundaic rhinoceros, Asian elephant, and Siamese Crocodile. Several primate species also inhabit the park.

From Cat Tien, we'll move south to the Mekong River's vast delta region. Approaching the South China Sea, its main forks branch into innumerable channels connected by small waterways that local people use for transportation. As our studies will demonstrate, huge volumes of fresh water flow through the whole region, and the churning effect of the Pacific tides moves the water in complicated ways. Compared to other Asian rivers, the Mekong remains quite free of industrial pollution. Instead, its waters carry tons of sediment every minute, transported from the Eastern Himalaya. The result is a complex and productive tropical ecosystem, intensively utilized for small-scale farming and aquaculture, but still largely intact.

The diversity of livelihoods practiced by the people of the Mekong Delta is practically overwhelming. Here, people grow rice several different ways, together with mango, pineapple, lychee and citrus orchards. They harvest nypa palm from brackish canals. Fish and shrimp aquaculture are also important. The technique of 'rice-shrimp' farming produces grain in the rainy season and protein in the dry season when brackish water intrudes upriver.

In the Mekong Delta, we'll divide our time between villages on Tau Phuong, an island in the 'front fork' of the river where several villages are accessible by ferry, and Mui Ca Mau, a lonely point of land at the very southern tip of Vietnam where fishing communities have been established near dense mangrove forests. At Tau Phuong, we plan to stay with local families to learn first-hand about the agricultural ecology of this area, representative of much of the 'upper' delta region where the waters are fresh all year-round. At Mui Ca Mau, we'll stay at a national park bungalow, at the edge of the sea, surrounded by mangrove forest. This is a strange and isolated place where local people subsist by catching fish in the sea, or by collecting colorful fiddler crabs and amphibious mud-skippers from the mangrove thickets at low tide. Our fieldstudies in Mui Ca Mau will include time devoted to learning about the biological ecology of the mangrove forest and time devoted to learning about the artisanal fishing methods used by local people in this area.

To get around the Mekong Delta, we'll travel part of the time by chartered vehicle, and part of the time by boat; there are no continuous roads to more remote, outlying places like Mui Ca Mau. We plan to leave Vietnam, and enter Cambodia, moving upriver by boat.

The focus of our fieldstudy in Cambodia is the great Southeast Asian lake called Tonle Sap, which floods to a huge size when the Mekong rises at the beginning of the summer monsoon, then partially drains when the Mekong's level drops during the dry season. Only recently have scientists begun to comprehend the great importance of Tonle Sap's ecology. As we will discover, its seasonally flooded forests are vast and provide critical breeding habitat for seven species of large water bird, several of which (like Saurus Crane, Adjutant Stork, and Black-headed Ibis) are threatened with extinction. Also, by filling in the rainy season and draining to a low level in the dry season, Tonle Sap stabilizes the flow of the Mekong, buffering areas downstream from the massive floods that might otherwise occur. Rich in nutrients from the seasonal flooding, Tonle Sap's and its fishery contributes much of the protein consumed by the people of Cambodia. Endangered species like the Mekong Giant Catfish may also spawn in Tonle Sap, their offspring moving into the main channel of the river as juveniles.

We plan to conduct our studies at a biodiversity conservation area called Prek Toal, situated at the western end of Tonle Sap. In this area of seasonal flooding, villagers' homes are designed to float, or they are built atop very tall stilts. At Prek Toal, we'll use boats to travel in the flooded forest, documenting water bird counts. During low-water, the birds' habitat shrinks and they tend to congregate in large groups. During high-water, the time of our visit, the bird populations are more widely dispersed. Through home-stays in a village near Prek Toal, we'll have a good chance to examine how local people gain their livelihood from the lake. We can also assess the effectiveness of some community-based conservation and development projects that are in place here.

Also in Cambodia, we've set time aside to visit Angkor Wat, a UNESCO World Heritage Site and one of the world's important religious centers. As we will learn during our visit, the Khmer kings who built Angkor Wat from the 11th Century paid close attention to the landscape: their ancient, gravity-fed irrigation system continues to intrigue human ecologists, and the entire complex is arranged in the shape of a *mandala* or symbolic representation of the cosmos.

Moving upriver to Laos, we'll first travel to Sipandon ("Four-thousand Islands"), where the Mekong River splits into innumerable small channels before dropping over a fault scarp in a series of rapids and waterfalls. The people who live among the islands of Sipandon harvest a tremendous yield of fish from the rapids, waterfalls, and deep pools that occur here, using many kinds of nets and traps. Keyed into the migratory patterns of different fish species, they know just what kinds of nets to set in which locations at each time of year. Here we will examine how local tradition helps to protect the fish by designating exclusion zones in the deep pools where many species breed. Further upstream, near Savannakhet, Laos, we will examine the important ecology of the Mekong's outer watershed, the Truong Son mountains, where tribal groups like the Katang still pursue subsistence livelihoods that depend in part on collecting "non-timber" forest products like frogs and protein-rich ant larvae. The Katang people are gracious hosts and we always enjoy the privilege to home-stay in their villages while we conduct our field studies.

Our last field site is Pangmapha in the mountains of Thailand, an ecological significant region that is transitional from SE Asia to the plateaus and high mountains of southern China. Here, we will investigate an area of rugged, folded limestone, riddled with caves, sinkholes and sharply sculpted rock pinnacles. As we will discover, this enclave supports intact monsoon forest and numerous ethnic minority 'tribal' groups like the Karen, Lahu, Lisu, and Hmong, whose lifestyles differ from the majority Thai people. Our fieldstudies in Pangmapha include 4-5 days of trekking, with nights spent camping or sleeping in the homes of local villagers.

ACADEMIC CREDIT

Students will receive 12 semester units (18 quarter units) awarded through California State University Monterey Bay Extended Education. While students usually encounter no difficulties in transferring credit to their home campus, applicants should check with their advisors prior to enrolling. Our staff will be happy to explain the program in further detail to the applicant's advisor, if necessary. The Mekong River field studies program gives credit in three courses:

- ENVS 370, Environmental Wildlands Studies (4 semester system units)
- ENVS 371, Environmental Field Survey (4 units)
- ENVS 372, Wildlands Environment and Culture (4 units)

Letter grades are based upon the breadth of our endeavors. Team members receiving academic credit will be evaluated on the basis of: 1) active participation in all scheduled class and field activities; 2) written-examinations; 3) participation in the design and implementation of a cooperative group field research project; 4) participation in scheduled meetings and class activities; 5) a mapping exercise. Team members are expected to conduct themselves in a mature and responsible manner. Wildlands Studies reserves the right to require any student to withdraw from the program if their conduct is detrimental to or incompatible with the interests, safety, or welfare of any course participants.

PROJECT COSTS

Program Fee:	\$2695 plus \$150 Application Fee. Program fee due August 1, 2010 Enrollment on a space-available basis after the fee due date until the program is full.
Estimated in-country Expenses:	\$1950 per person includes most in-country accommodations, travel in-country, instructor travel, camping costs/permits, logistical support, group supplies and materials/research costs.
Personal Spending Money:	\$400 (this varies according to taste – but don't be caught short) Group members are individually responsible for Cambodia and Laos visas (about \$35 each, payable on entry), the cost of meals in cities and towns where it's less practical to eat as a group, the cost of any beverages consumed, discretionary travel and personal expenses.
Airfare:	\$1400 (estimated)
Vietnam Visa:	\$100

Students should inquire at the financial aid office of their home campus regarding the use of their loans or grants for this course. CSU Monterey Bay Extended Education/ Wildlands Studies are not responsible for non-refundable airline or other tickets or payments or any similar penalties that may be incurred as a result of any course cancellation or changes.

TRANSPORTATION

Arrangements will be available for participants to fly from Los Angeles International Airport to Ho Chi Minh City, Vietnam. You can also arrange to join the group in Ho Chi Minh City if that is a better option for you. At the end of the program, you can decide whether you want to fly home on the scheduled date or remain on your own in Southeast Asia before using the return portion of your ticket. Additional transportation will include a range of public or chartered vehicles and river boats.

All reasonable efforts will be made to follow the schedule of activities outlined above. However, please understand that in Southeast Asia, travel arrangements can remain tentative until the traveling actually takes place. Weather conditions, road closures, as well as political and bureaucratic considerations may affect our plans. Wildlands Studies has put together an innovative new program in Southeast Asia. Team members need to be flexible, patient, and prepared to adapt to unexpected situations.



www.wildlandsstudies.com
wildlands@wildlandsstudies.com
PO Box 3403, Santa Cruz, CA 95063
T/F +1.831.477.9955

OFFICIAL DOCUMENTS

You will need a passport that is valid at least six months after the end of our program. You are also responsible for obtaining a 30-day Vietnam visa. We will send you additional information about how to get the Vietnam visa, a process that usually takes about three weeks, in a subsequent update. The other countries we will visit (Cambodia, Laos, and Thailand) all offer visas or entry permits on arrival, so you don't need to worry about getting advance visas for those countries, only Vietnam.

PRE-PROGRAM MAILINGS

Detailed information regarding gear/food, meeting plans, group expenses payment, medical recommendations and academic preparations will be sent to all team members in a subsequent logistics letter about 8-10 weeks before the project initiates.

PROGRAM LEADERS

CHRIS CARPENTER works as an ecologist and conservation scientist for Wildlands Studies. Chris has conducted field studies and led natural history programs in Asia and North America for many years. Chris lives in Chiangmai, Thailand and currently teaches field courses in China, Southeast Asia and the Himalayan region.

THANKIT KUNKHAJORNPHAN (Ajan Thanit), has taught the Wildlands Studies courses in Southeast Asia since 1998. A Chiangmai resident, Ajan Thanit has worked as a faculty member with the Payap University Research and Development Institute, specializing in the environmental and social sciences. She has consulted for non-government organizations and for the United Nations and organizes cultural exchange programs for The Learning Path.