UNIVERSIDAD PERUANA CAYETANO HEREDIA

Escuela de Postgrado Víctor Alzamora Castro

Ecology & Conservation of Marine Mammals of the Humboldt Upwelling Ecosystem-Peru

UPCH Life Sciences field school

CSA Centro para la Sostenibilidad Ambiental UPCH

PROYECTO PUNTA SAN JUAN

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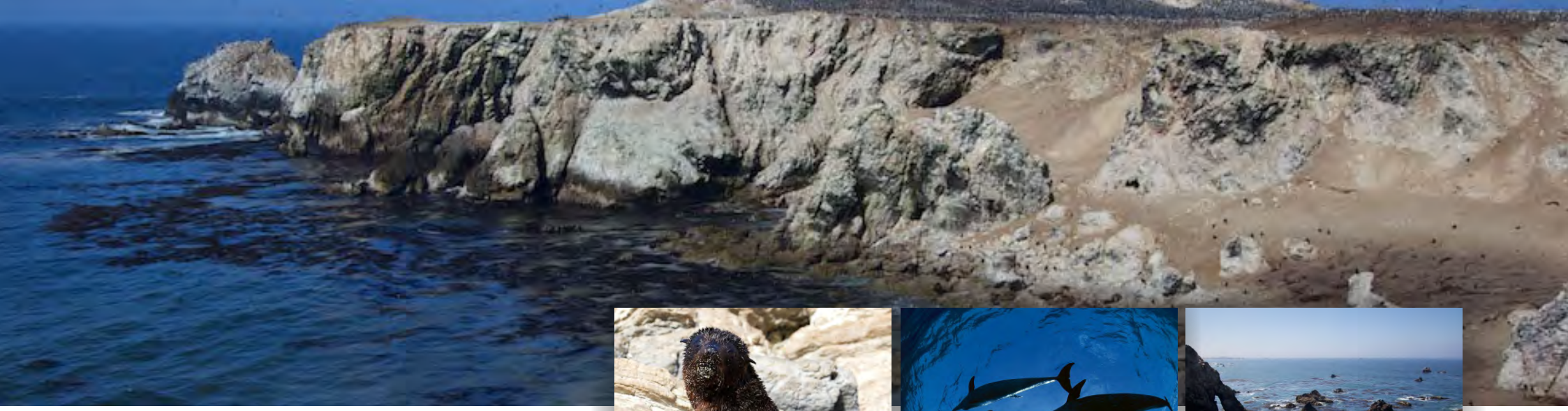

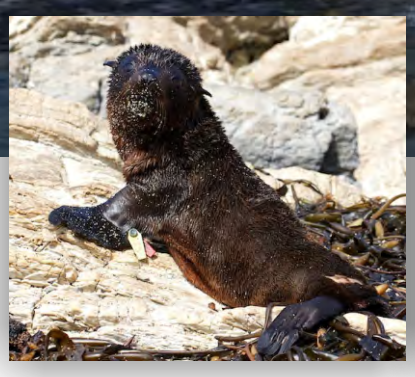

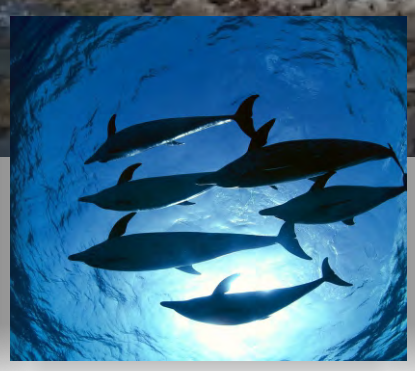

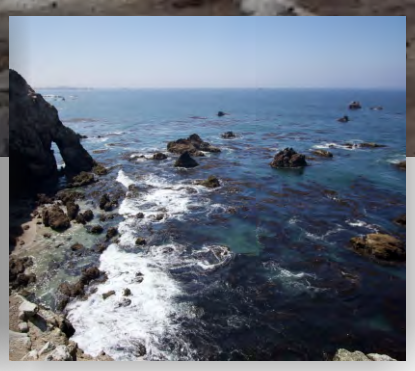

Presentation :

This is a residential field-based course in Peru on the biology, anatomy, physiology, ecology, evolution, behavior, population biology, management and conservation of marine mammals, explaining why this group is so important, controversial and interesting.

Students will be provided with a comprehensive knowledge on marine mammal ecology with special enphasis on species inhabiting the Humboldt Current Upwelling Ecosystem off the coast of Peru -a developing country in with the largest single species fishery in the world.

This is a university-accredited course and is intended for students in the summer vacation and for enthusiastic individuals with keen interest in the marine environment. This course is suitable for MSc., undergraduate students in the last 3 years of study and individuals who want to learn from experts about the ecology and conservation of sea lions, fur seals, dolphins, whales, marine otters of the south Pacific Ocean.

The course will take place in Lima and in Punta San Juan. Lima is the capital and largest city of Peru, one of the top mega diverse countries and home of the Cayetano Heredia University, the local host institution.

Punta San Juan (15°22'S, 75°12'W) is a 54 hectare (133 acres) headland located in the town of Marcona 500 km south of Lima. Punta San Juan has been protected for more than 60 years by the Peruvian government for the exploitation of guano, a natural fertilizer made from seabird droppings.

During the 8 full days in the field, students will be exposed to lectures, fieldwork, data collection and analysis on resident marine mammals while being lodged at the oceanfront field station.

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Objective :

By the end of this course, students will be able to:
Understand concepts of marine mammal biology and ecology.
Design and collect behavioral data on wild populations of marine mammals.
Respond critically to marine conservation issues in a developing country with the largest single species fishery.

Assessment :

This course is open to students from different universities world wite. All students will be evaluated by course instructors according to participation (25%), group discussions (25%), groups field project (30%) and project presentation (30%).

Prerequisites :

University level students should be at the last 3 years of undergraduate studies. It is recommended an introductory course in vertebrate biology or marine biology. Students at other levels should have a general knowledge of marine life and experience in vertebrate biology is desirable.

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Study Plan :

MODULE 1: Humboldt Current Ecosystem

This module will cover topics in the abiotic about abiotic features of the Humboldt Current Ecosystem off Peru and the major human activities taking place in this locality marine (i.e., anchoveta fishery, fish meal plants, etc.).

MODULE 2: Topics in Marine Mammal Biology

In this module cover topics on basic biology, ecology, anatomy, physiology, evolution, behaviour and population biology of marine mammals with emphasis on the species living on the coast off the Humboldt Current Upwelling Ecosystem.

MODULE 3: Field projects: design and data collection

In this module will be presented several methods on how to design and collect data in the field on marine mammals through observation and sample collection in situ.

MODULE 4: Critical thinking: Marine conservation science and policy

This module will cover current issues of marine conservation at a global and local scale (Humboldt Current Ecosystem) through presentation of case studies and group discussions. Students will think on how to apply a project in marine mammal conservation in a country like Peru.

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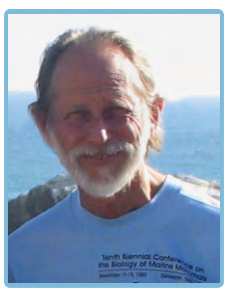
Main teachers :

Monica Muelbert, PhD.

Dr. Muelbert was born in Brazil and then studied her PhD at Dalhousie University (Canada) on size at weaning in harbor seals. She is currently professor and supervisor at the Postgraduate Program in Biological Oceanography at the Federal University of Rio Grande, Brazil. Monica is founding member of the Latin American Society of Specialists on Aquatic Mammals (SOLAMAC), Ad hoc consultant for Brazil National Scientific Council, member of the Expert Group on Birds and Marine Mammals for the Scientific Committee for Antarctic Research (SCAR-EGBMM), and others.

Patricia Majluf, PhD.

Dr. Majluf was born in Peru and then studied her PhD at University of Cambridge (UK) on reproductive ecology of South American fur seals. She is founder and director of the Centre for Environmental Sustainability at the Cayetano Heredia University (CSA-UPCH) in Lima, Peru. Patricia is founding member of the SOLAMAC, associate research scientist for the Wildlife Conservation Society (20yrs). She has received various grants and awards for marine conservation in Peru (Whitley Fund for Nature, BBVA and others) and has recently been invited to act as PEW fellow.



Bob Brownell, PhD.

Dr. Brownell received his Ph.D. from the University of Tokyo (Japan) and has conducted research on the biology and conservation of whales, dolphins and porpoises throughout the world. Dr. Brownell is a Senior Scientist for International Protected Resources with NOAA Fisheries at the Southwest Fisheries Science Center in California, USA. Bob has been a member of the U.S. delegation to the International Whaling Commission (IWC), President of the Society for Marine Mammalogy, and has published close to 200 scientific papers, book chapters, and management documents on various aspects of whale, dolphin, and porpoise biology, conservation, and management.

Susana Cárdenas-Alayza, MSc.

Ms. Cárdenas-Alayza MSc. degree in Zoology from the University of British Columbia (Canada) with research on prey abundance and population dynamics of South American fur seals. Susana is currently director of the Punta San Juan Project, associate researcher of the CSA-UPCH and Coordinator for Field Programs in Peru for the Chicago Zoological Society. Ms. Cárdenas-Alayza is a current member of the pinniped specialist group for IUCN, member of the Society for Marine Mammalogy, and others.

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Cost :

$ 1,800 US dollars

DOES INCLUDE	DOES NOT INCLUDE
Transport to and from the Lima airport	Travel from home country to Peru
Lodging in Lima during the course	Visa costs
Round trip from Lima to the Punta San Juan field site	Mandatory international accident and health insurance
Lodging, meals and transport at the field site	Personal expenses. It is suggested students bring at least $300US for personal spending money
Tuition	
Administrative fees	Online transaction fee or bank-to-bank wire transfer fees (fees may vary according to your bank)
Course materials	
Course certificate	

Course Schedule :

Day 1. Saturday, Aug 3rd
Course introduction and oppening lectures at university campus (Miraflores) all morning. Lunch with students and teachers on campus. Students will be transported to bus terminal to go the field on Saturday night.
Days 2-9. Sunday, Aug 4th - Sunday, Aug 11th
Residential field course at the Punta San Juan guano reserve in Ica. All lodging, transport and meals will be provided. Transport to field site is overnight, departure at 9pm and 6am arrival. Students will travel in country with teachers at all times.
Day 10. Monday, Aug 12th
Closing lectures at university campus (Miraflores) all morning. Lunch with students and teachers on campus.

Important Dates :

Registration	April 15th to June 30th, 2013
Duration	August 3rd to August 12th, 2013

Payments:

You can pay for this course at our online store: **http://store.upch.edu.pe**
*All students must pay course fee by June 30th 2013.

Informations and Registration

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