

CENTRO DE ESTUDIOS INTERAMERICANOS, CEDEI
FALL SEMESTER 2008

ENV 301:Environmental Studies of the Andes

PROFESORA: Dr. Teresa Clare

The Andes are the longest mountain range on earth, rich in mineral resources scenic beauty and unique biodiversity. This region boasts the world's driest desert, its wettest rainforest, its highest active volcanoes, deepest gorge and highest navigable lake. Only within the Andean range do we find snowfields on the Equator and glaciers at sea level - in fact almost every major natural habitat in the world is found within the borders of the Andean countries. We will concentrate mainly on Ecuador and the Tropical Andes region, considered the single richest and most diverse of the planet's globally recognized biodiversity hotspots. It is also a region that has been inhabited by human communities for thousands of years. We will examine the ecology of the major habitat types of the Andean region, the ways in which human cultures have impacted the landscape and ecology and the efforts that are being made to conserve biodiversity and encourage sustainable development in this region.

Throughout the term, students will carry out an original investigation on a topic of their choice.

<u>Exams and grading</u>	1.	Mid-term exam 30%
	2.	Short assignments / seminars 10%
	3.	Final exam 30%
	4.	Term Project 25%
	5.	Oral presentation of project 5%

Class 1. Wednesday October 22

Introduction to the course. Video - Flight of the Condor. Biodiversity Hotspots.

Class 2. Thursday October 23

Species and ecosystem diversity in Ecuador.

Class 3. Monday October 27

Origin of the Andes and of the flora and fauna of South America. People of the Andes.

Class 4. Tuesday October 28

The Andes and the Humboldt Current. South America's paradoxical Pacific coast. Video: BBC - Paracas and the Billion Dollar Birds. Ecuador's Dry forest, mangrove and coastal wetland ecosystems.

Class 5. Wednesday October 29

The Galapagos Islands -1. Ecology and evolution

Class 6 Thursday October 30

The Galapagos Islands 2. Conservation issues

Class 7. Tuesday November 4

Rainforest ecology 1. Rainforest structure and diversity, nutrient cycling in tropical rainforests.

Class 8. Wednesday November 5

Rainforest ecology 2. Interrelationships between plants and animals in the Amazon rainforest. Video. BBC Andes to Amazon. Amazon Jungle.

Class 9. Thursday November 6

Amazon rainforest – conservation issues

Class 10. Monday November 10

Cloud forest ecology and hydrology. Human impacts on Andean montane forests. Video: BBC Avenue of the Volcanoes.

Class 11. Tuesday November 11

Paramo ecology 1 – biodiversity and adaptations of páramo plants and animals. Ecological and hydrological importance of the páramo ecosystem.

Class 12. Wednesday November 12

Paramo ecology 2. Paramos and people. The Kyoto convention and carbon sink plantations

Class 13. Thursday November 13

Mid term exam

Class 14. Monday November 17

Video: ZDF Sacred Animals of the Incas. Andean condor –folklore and reality Camelids in the Andes – culture and conservation. The CITES and Vicuña conventions.

Class 15. Tuesday November 18

Spectacled bear – conflicts with campesinos. Do bears kill cows? Video: BBC Shadows in the Forest.

Class 16. Wednesday November 19

Overview and discussion of threats to biodiversity in the Andean region.

Class 17. Thursday November 20

Protected areas and their management in the Ecuadorian Andes.

Class 18 Monday November 24

Is sustainable development possible? Ecotourism, community wildlife management

Class 19. Tuesday November 25

Environmentally sound timber production, extraction of non-timber forest products, Genetic prospecting & Biopiracy.

Class 20. Wednesday November 26

Ex-situ conservation in the Andes

Class 21. Thursday November 27

Revision class

Class 22. Monday December 1

Final exam

Class 23. Tuesday December 2 (1 hour).

Student project presentations

