

NEOTROPICAL NATURAL HISTORY
COSTA RICA
BIO 250
(3 credits)
INFORMATION PACKET



Brown Blunt-Headed Vinesnake
Imantodes cenchoa

Peter Skystad
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Natural Resources and Wildlife Technology Program
Advanced Technology Center for Sustainable Land Use
NRWT Program Office (Room 1010-CAOS)
Garrett College
687 Mosser Road
McHenry, MD 21541 (USA)

Course Duration: 11/2/08 to 2/2/09
Costa Rica Field Portion: 12/31/08 to 1/14/09

BIO 250 Course Syllabus



Scarlett-webbed Treefrog
Hyla rufitela

NEOTROPICAL NATURAL HISTORY

Course Description

Neotropical Natural History is a field course in the basic principles and methodologies of natural history studies in a tropical environment. Topics include climates and ecosystems, rainforest structure and diversity, evolutionary patterns, coevolutionary complexities and the ecology of fruit, the neotropical pharmacy, land use in the neotropics, savannas and dry forests, mangroves and coral reefs, and deforestation and conservation of biodiversity. Field and lab activities will focus on amphibians, reptiles, birds, and mammals. Students will study the taxonomy and ecology of each of these faunal groups and will develop skills in locating, observing, handling, and field identification of common neotropical species.

Course Assessment

Course Learning Goal		Outcome Measures and/or Classroom Assessment Techniques	When Assessment Occurs
1. The student will demonstrate competency in identification and natural history of amphibians and reptiles common in Atlantic lowland tropical rainforests of Costa Rica.		Lab/Field Exams (average score used for assessment)	Periodically
2. The student will demonstrate competency in identification and natural history of birds and mammals common in Atlantic lowland tropical rainforests of Costa Rica.		Lab/Field Exams (average score used for assessment)	Periodically
3. The student will demonstrate basic knowledge about the natural history of the greater neotropics.		Exams I and II (average score used for assessment)	Middle and End of Course
4. The student will demonstrate the ability to gather, organize, and present natural history information about a neotropical species in written form.		Species Report (rubric-scored)	End of Course

Instructor

Peter Skylstad, Associate Professor of Biology
Natural Resources and Wildlife Technology Program
Advanced Technology Center for Sustainable Land Use - NRWT Office (Room 1010-CAOS)
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687 Mosser Road
McHenry, MD 21541 (USA)
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Webpage: <http://academic.garrettcollege.edu/Faculty/pskylstad/Index.html>

Biological Field Assistants

Anthony Oliverio (Frostburg State University, Maryland Department of Natural Resources)
Justin DeVault (West Virginia University)

Texts (tentative)

A Neotropical Companion (2nd edition, Princeton University Press) – John Kricher (1997)
Amphibians and Reptiles of La Selva, Costa Rica, and the Caribbean Slope: A Comprehensive Guide (University of California Press) – Guyer and Donnelly (2005)
The Mammals of Costa Rica: A Natural History and Field Guide (Zona Tropical or Cornell University Press) - Mark Wainwright (2007)
The Birds of Costa Rica: A Field Guide (Zona Tropical Publication) - Garriques and Dean (2007)

A jump drive is required. A laptop is recommended.

Assessment

Exam 1	100 (20%)
Exam 2	100 (20%)
Lab/Field Quizzes	100 (20%)
Species Report	100 (20%)
Course Summary Report	50 (10%)
<u>Participation</u>	<u>50 (10%)</u>
TOTAL:	500

WARNING! Students must complete all assignments in order to pass the class. Plagiarism will result in a “0” for any assignment, automatic failure of the course, and expulsion (see plagiarism section below).

Assessment Scale

93 - 100% = A	90 - 92% = A-	87 - 89% = B+	83 - 86% = B
80 - 82% = B-	77 - 79% = C+	73 - 76% = C	70 - 72% = C-
67 - 69% = D+	63 - 66% = D	60 - 62% = D-	< 60% = F

Academic Dishonesty Policy

All students at Garrett College and La Suerte Biological Field Station (LSBFS) are expected to adhere to a code of academic honesty and integrity. Violations of the code of academic honesty include all forms of cheating, plagiarism (see plagiarism section below), and misuse of college documents or instruments. Students found to be in violation of the code of academic honesty will receive an **F** in the course in which dishonesty occurred and will be withdrawn from all other courses. The student will be academically suspended from Garrett College for a minimum of one semester. Additional penalties may be incurred as each violation is investigated and reviewed on an individual basis.

Schedule

The schedule will be tentative, depending upon the weather and class needs. In general, most class time will be spent in the field, regardless of weather conditions. The class will visit a variety of locations daily within the LSBFS to familiarize students with different species and ecosystems found in the area.

Attendance

Attendance is required. You are responsible for knowing all species and concepts covered during each class. The best way to learn species covered in this class is to attend class! This information is very difficult to pick up outside of class, so it is in your best interest to come to all classes. If class is missed, it is *your* responsibility to obtain the missed species and information, either from the instructor or from fellow students. Missed quizzes and tests cannot be excused for reasons other than "documented" extreme illness or death in the family. If a quiz or test is missed, it is the instructor's privilege to determine whether or not the missed quiz can be excused. Please do not try to abuse this. If for any reason a quiz is missed, please notify the instructor *ASAP*.

Classroom and Field Etiquette

The goal of any classroom or field activity is to provide the greatest educational benefit to all students. It should go without saying that you should expect and practice, in your words and actions, respect and consideration for fellow students and the instructor. In other words, your behavior should not interfere with the rights of others or with the educational process. **The instructor has the right to dismiss a student from class for behavior he deems disruptive to the teaching and learning process.** Such behavior includes, but is not limited to, tardiness, leaving in the middle of class without permission, inappropriate conversation during class, and use of inappropriate language. You are expected to give the instructor your undivided attention, interest, and respect. While this course is in session, information will be provided constantly. You need to pay attention and avoid unnecessary conversation to prevent yourself and/or others from missing important information. All cell phones and other electronic devices must be turned off at all times during class.

Tobacco use

In accordance with LSBFS tobacco use policy, students may only use tobacco (smoked or smokeless) in designated areas. No tobacco products may be used during lecture, lab, or field activities.

Field Notebook

The majority of class time in this course will be spent in the lab and field. Lab and field activities emphasize two goals: learning to recognize amphibians, reptiles, birds, and mammals commonly found in Atlantic lowland tropical rainforests and learning to use field guides to identify unknown species. To facilitate success in achieving these goals, you will record, at a minimum, the following information in a "Rite in the Rain" field notebook: observations you make about each species examined during lab or field activities, the date, location, species observed, species characteristics, and

habitat of each species. This will help you quickly identify each species in the future. Notes must be recorded in a Rite-in-the-Rain waterproof notebook.

Species Report Instructions and Format

Choose a single species or combination of species of amphibian, reptile, bird, or mammal of particular interest to you and conduct a thorough survey of reference books, field guides, field observations, and other sources at LSBFS to provide the information listed below. Points listed following each category indicate the weighting each category will receive in determination of your grade for the assignment.

1) Classification (5 points)

This section should include the class, order, family, and genus to which the species belongs, the scientific name of the species (provided in the proper format), an explanation of how the species got its common and scientific names, a translation of the scientific name, and any other common or colloquial names for the species. Be very careful with the scientific name and other taxonomic terms. Word processing software packages often autocorrect the genus/species epithet and other taxonomic terms into an incorrect spelling!

2) Range map (5 points)

Provide a map of the current range of your species. If the species is migratory, indicate the breeding and wintering range, and in what part of the range (if any) the species is a permanent resident. You may wish to indicate the original/historic range of the species, if different from the current range, on the same or a different map. You may use a digital camera to “scan” your maps, but be sure to cite the source.

3) History of the species (5 points)

Humans have had an impact, directly or indirectly, on the range, numbers, and behaviors of many wildlife species. This section should discuss any such impacts. This may be partly addressed using the range map, as mentioned above. For some species, there may have been very little change from the pre-European colonial period to today, or little information may be available to address this topic. Do your best to find any appropriate information. You may also include in this section any interesting indigenous lore regarding your species.

4) Population numbers (5 points)

Indicate average densities (in suitable habitat) for your species. You may find this information expressed as average territory or home range size, rather than as density; this may be used in place of density. For some species, you may find an estimate of current state-, nation-, or continent-wide population size. Include this. You may have to dig to find this information, but do your best. Also indicate whether your species is legally listed as Threatened or Endangered on any state, federal, or international listings.

5) Habitat (20 points)

In this section you will want to describe, **in detail**, the typical habitat or habitats in which the species occurs. Explain how habitat needs differ by season, if applicable. This information is important, so be complete!

6) Food and feeding behaviors (20 points)

List the major items in your species' diet. Indicate which, if any, are critically important, whether they make up the bulk of the diet or are important, but eaten in small quantities. Be certain to mention whether diet differs from one season to another, or by age or sex. If the diet of the young is substantially different from that of adults, be sure to say so.

Don't worry about listing every conceivable item your species may eat, but be thorough. Also discuss how your species obtains its food, including searching for and capturing/handling food items.

7) Behaviors and social relationships (5 points)

Discuss any characteristic behaviors displayed by your species. Feeding (6) and courtship behaviors (8), however, should be listed in their appropriate sections, rather than here. Describe the vocalizations or other sounds, if any, made by your species. Discuss the social relationships of the species: Is it solitary? Does it commonly occur in flocks or herds? Do its social relationships vary by season? The length of this section will depend on your species.

8) Yearly cycle (20 points)

This section should cover the annual activities of your species, especially as they relate to reproduction. Information should include 1) courtship behaviors, 2) type of pair bond (if any) formed, 3) birthing (nesting/denning) site, 4) number of broods/litters per year, 5) length of incubation/gestation period, 6) when during the year the young hatch/are born, 7) number (per brood/litter) and appearance of eggs or young, 8) care of the young, 9) non-breeding activities, and 10) age when the species first reaches sexual maturity. Be sure to discuss when during the year these activities occur.

9) Mortality and disease (5 points)

The important sources of mortality, both natural (e.g., predators, disease, weather, starvation) and human-related (e.g., hunting, trapping, roadkills, habitat destruction) should be discussed in this section. Any parasites that significantly affect the welfare of the species should also be mentioned. Provide the species' typical lifespan in the wild.

10) Management (10 points)

This section should address the various strategies employed by humans to manage the species' populations for people and/or the species' own benefit. Various techniques used to increase, decrease, stabilize, or otherwise control population numbers should be discussed. These techniques might include direct population manipulation (including the establishment of hunting and/or trapping seasons, transplanting, or direct removal) and/or indirect population manipulation through habitat management. If your species is hunted and/or trapped in Costa Rica, include pertinent regulations. Damage control procedures should also be covered, if applicable. Also indicate how the species is studied and how its populations are monitored. You may propose management strategies if little is known about your particular species.

Additional information

Please feel free to include any additional topics of interest, if appropriate, in your paper.

References and Written presentation (up to 10 points off each)

The paper must be word-processed, double-spaced, and use a 12 point font. There will be at least 3 laptops available for use by students for word processing and other needs. The instructor will collect digital copies on a jump drive at the end of the course. You may use a digital camera to "scan" range maps and other images into your document. The length of the paper is up to you; just be certain that all the pertinent information is adequately covered. **You must consult and list a minimum of 5 sources.** All direct quotes or specific information not readily available in a variety of sources (e.g., information from a journal article) should be appropriately cited. All references used or consulted, whether specifically cited or not, should be listed in a References section. Proper grammar and spelling and a neat presentation are expected. You will lose up to 10 points for poor grammar and/or spelling, and/or a sloppy presentation. If the paper is exceedingly poor in this respect you will receive a 0.

* Remember, do not plagiarize, as it will result in automatic failure! Always give credit where credit is due (see plagiarism section below).

Course Summary Report

The CSR must be word-processed, double-spaced, and use a 12 point font. A digital copy must be turned into the instructor. The CSR is designed to help the student, at the end of the course, organize and synthesize their experience in a neotropical lowland rainforest. For this report, the student should summarize daily activities chronologically with special emphasis on species observed, techniques learned, and any other pertinent natural history information. This assignment is very much a formal daily log of your experience in Costa Rica. You should rely heavily on your field notebook for this assignment.

PLAGIARISM INFORMATION

“To borrow another writer’s language or ideas without proper acknowledgment is a form of dishonesty known as plagiarism” (Hacker 353).

Writers are obliged to acknowledge all material that is quoted, paraphrased, or summarized from any work. This includes information downloaded from the Internet. If a writer fails to cite a source, whether deliberately or accidentally, he/she is guilty of plagiarism. Research papers are a collaboration between the student and his/her sources. To be fair and ethical, students must acknowledge the origin of these sources, whether from print or electronic media. **Failure to do so is a serious academic offense (plagiarism)** (Hodges & Whitten 413).

Plagiarism is a form of academic dishonesty. Students who plagiarize, whether in written work or in computer assignments, are subject to the following disciplinary actions as stated in the Code of Student Conduct published in Garrett’s catalog:

“All forms of academic dishonesty are causes for dismissal from the institution. The penalty is course failure and College expulsion. The individual may request readmittance to the institution. However, readmittance is not automatic, nor is it guaranteed” (41).

Plagiarism may take three different forms:

- 1) failing to cite quotes and borrowed ideas,
- 2) failing to enclose borrowed language in quotation marks,
- 3) failing to put summaries and paraphrases in your own words

(Hacker 354).

Students often believe that as long as they do not quote directly from their source, they have not plagiarized. On the contrary, unless the paraphrase or summary is truly the student’s work, distinct from the author’s language, the summary is plagiarized.

To avoid plagiarizing an author’s language, students should resist the temptation to look at the source while summarizing or paraphrasing. For instance, they should close the book, write from memory, then open the book to check for accuracy (Hacker 356).

EXAMPLES

The following paraphrases are plagiarized - even though the source is cited - because the language is too close to that of the original source.

Original Version

If the existence of a signing ape was unsettling for linguists, it was also

startling news for animal behaviorists.

-Davis, Eloquent Animals, p. 26

Unacceptable Borrowing of Phrases

The existence of a signing ape unsettled linguists and startled animal behaviorists.

(Davis 26).

Unacceptable Borrowing of Structure

If the presence of a sign-language-using chimp was disturbing for scientists studying language, it was also surprising to scientists studying animal behavior (Davis 26).

Acceptable Paraphrases

When they learned of an ape's ability to use sign language, both linguists and animal behaviorists were taken by surprise (Davis 26).

According to Flora Davis, linguists and animal behaviorists were unprepared

for the news that a chimp could communicate with its trainers through

sign language (26).

(Hacker 356)

When in doubt, a student should consult his/her English text or research manual or the writing lab.

WORKS CITED

Hacker, Diana. Rules for Writers. Boston: Bedford, 1996.

Hodges, John C. and Mary E. Whitten. Harbrace College Handbook. New York:

Harcourt, 1989.

In Wildness is the Preservation of Humankind.

Henry David Thoreau

If I have seen further than others, it is because I stand on the shoulders of giants.

Sir Isaac Newton

NEOTROPICAL NATURAL HISTORY

Tentative Schedule

Lecture/Discussion Reading Assignments

- Lecture 1 - Neotropical Climates and Ecosystems (Kricher, Chp 1)
- Lecture 2 - Neotropical Rainforest Structure and Diversity (Kricher, Chp 2)
- Lecture 3 - Neotropical Rainforests: A Functional Approach (Kricher, Chp 3)
- Lecture 4 - Evolutionary Patterns in the Neotropics (Kricher, Chp 4)
- Lecture 5 - Complexities of Coevolution and Ecology of Fruit (Kricher, Chp 5)
- Lecture 6 - The Neotropical Pharmacy (Kricher, Chp 6)
- Lecture 7 - Land Use in the Neotropics (Kricher, Chp 7)
- Lecture 8 - Savannas and Dry Forests in the Neotropics (Kricher, Chp 10)
- Lecture 9 - Neotropical Mangroves and Coral Reefs (Kricher, Chp 11)
- Lecture 10 - Deforestation and Conservation of Biodiversity (Kricher, Chp 14)

Daily Activities Schedule

- Dec 31 (Wed) Arrive San Jose, Costa Rica and spend night
- Jan 1 (Thu) Travel to LSBFS (Depart 8:00 AM, arrive between 12:00 and 3:00)
 - 3:00 - Orientation, safety protocols, rules of LSBFS
 - 5:00-6:00 Supper
 - 7:00-10:00 Two evening orientation nature walks, Birds, Herps, Mammals (Justin, Amo, Peter)
- Jan 2 (Fri) 7:00-8:00 Breakfast
 - 8:30-10:00 Lecture/Discussion 1 "Neotropical Climates and Ecosystems" (Peter)
 - 10:00-10:15 Break
 - 10:15-11:45 Lecture/Discussion 2 "Neotropical Rainforest Structure and Diversity" (Peter)
 - 12:00-1:00 Lunch
 - 1:00-2:30 Lecture/Discussion "Introduction to Neotropical Herpetology" (Justin, Amo, Peter)
 - 2:30-4:00 Lecture/Discussion "Introduction to Neotropical Ornithology" (Justin, Amo, Peter)

4:00-4:15 Break

4:15-5:00 Lecture/Discussion "Introduction to Neotropical Mammalogy" (Justin, Amo, Peter)

5:00-6:00 Supper

6:30-10:00 Orientation and Field Methods for Herps, Birds, Mammals (Justin, Amo)

Jan 3 (Sat) 7:00-8:00 Breakfast

8:30-10:00 Lecture/Discussion 3 "Neotropical Rainforests: A Functional Approach" (Peter)

10:00-10:15 Break

10:15-11:45 Lecture/Discussion 4 "Evolutionary Patterns in the Neotropics" (Peter)

12:00-1:00 Lunch

1:00-4:00 Field Methods for Neotropical Herpetology and Ornithology (Justin, Amo, Peter)

4:00-5:00 Field Methods for Neotropical Mammalogy (Justin, Amo, Peter)

5:00-6:00 Supper

6:30-10:00 Field Orientation, Search/ID Skills, Herps, Birds, Mammals (Justin, Amo)

Jan 4 (Sun) 7:00-8:00 Breakfast

8:30-12:00 Field Methods for Herps, Birds, Mammals (Justin, Amo, Peter)

12:00-1:00 Lunch

1:00-2:30 Lecture/Discussion 5 "Complexities of Coevolution and Ecology of Fruit" (Peter)

2:30-2:45 Break

2:45-4:00 Lecture/Discussion 6 "The Neotropical Pharmacy" (Peter)

4:00-5:00 Break

5:00-6:00 Supper

6:30-10:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

Jan 5 (Mon) 5:30-7:00 Field Activities for Birds, Mammals, Herps (Justin, Amo)

7:00-8:00 Breakfast

8:30-12:00 Field Activities for Herps, Birds, Mammals (Justin, Amo, Peter)

12:00-1:00 Lunch

1:00-5:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

5:00-6:00 Supper

6:30-10:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

Jan 6 (Tue) 7:00-8:00 Breakfast

8:30-10:30 Study Session for Lectures 1-6

10:30-12:00 **EXAM I** (Lectures 1-6)

12:00-1:00 Lunch

1:00-5:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

5:00-6:00 Supper

6:30-10:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

Jan 7 (Wed) 5:30-7:00 Field Activities for Birds, Mammals, Herps

7:00-8:00 Breakfast

8:30-10:00 Lecture/Discussion 7 "Land Use in the Neotropics" (Peter)

10:00-10:15 Break

10:15-12:00 Lecture/Discussion 8 "Savannas and Dry Forests in the Neotropics" (Peter)

12:00-1:00 Lunch

1:00-5:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

5:00-6:00 Supper

6:30-10:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

Jan 8 (Thu) 7:00-8:00 Breakfast

8:30-10:00 Lecture/Discussion 9 "Neotropical Mangroves and Coral Reefs" (Peter)

10:00-10:15 Break

10:15-12:00 Lecture/Discussion 10 "Deforestation and Conservation of Biodiversity" (Peter)

12:00-1:00 Lunch

1:00-5:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

5:00-6:00 Supper

6:30-10:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

Jan 9 (Fri) 7:00-8:00 Breakfast
8:30-12:00 Study Session for Lectures 7-10
12:00-1:00 Lunch
1:00-5:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)
5:00-6:00 Supper
6:30-10:00 Field Activities for Herps, Birds, Mammals (Justin, Amo)

Jan 10 (Sat) 7:00-8:00 Breakfast
8:00-10:00 Open
10:00-11:00 **EXAM II** (Lectures 7-10)
12:00-1:00 Lunch
1:00 No Activities Planned

Jan 11 (Sun) 7:00-8:00 Breakfast
8:30-12:00 Species Report, Course Summary Report, Wrap Up Field Activities
12:00-1:00 Lunch
1:00-5:00 Species Report, Course Summary Report, Wrap Up Field Activities
5:00-6:00 Supper
6:30-10:00 Field Activities for Herps, Birds, Mammals, (Justin, Amo)

Jan 12 (Mon) 7:00-8:00 Breakfast
8:30-12:00 Species Report, Course Summary Report, Wrap Up Field Activities
12:00-1:00 Lunch
1:00-5:00 Species Report, Course Summary Report, Wrap Up Field Activities
5:00-6:00 Supper
6:30-7:30 Final Meeting, **Species Report and Course Summary Report Due!**

Jan 13 (Tue) 7:00-8:00 Breakfast
8:30 Depart for San Jose, spend the night

Jan 14 (Wed) TBA Depart for US

Biological Field Station Main Office Contact:

La Suerte & Ometepe Biological Field Stations
Costa Rica and Nicaragua
PO BOX 55-7519
Miami FL 33255-7519 (USA)
Office Phone: 305.666.9932
Fax: 305.666.7581

Field Station Contact in Costa Rica:

Estacion Biologica La Suerte
Renee or Alvaro Molina (Station Owners/Operators)
renee@lasuerte.org or molina.renee@gmail.com

Cariari Pococi, Limon, Costa Rica
011.506.710.8005 (Costa Rica)
305.666.9932 (Miami Office, USA)

Webpage: <http://www.lasuerte.org/lasuerte.html>

La Suerte Biological Field Station (LSBFS) is located in the Rio La Suerte watershed of northeastern Costa Rica in an Atlantic lowland tropical rainforest (10° 26' 30" N, 83° 46' 15" W).

Biological Field Assistants

Anthony Oliverio, Frostburg State University and Maryland Department of Natural Resources
Justin DeVault, West Virginia University

Basic Expenses

In-Country Expenses	\$750 (covers all room, food, and transportation expenses in Costa Rica)
Airfare	\$400-\$600 (subject to change)
Tuition	\$318 (in-county)
Books	\$100
TOTAL:	\$1700 to \$1900 (depends on airfare and number of students)

Other Expenses

Passport	\$100 (US State Department has a three week passport processing period)
Spending Money	\$200 (you can get by on considerably less)

Alternative Funding Sources

There is no formal alternative funding source. Students may pursue loans, scholarships, and grants, but are responsible for funding their trip. Current student financing, in some cases, can be used to finance the course.

WebLinks <http://www.internationalstudent.com/loans/>
<http://www.internationalstudent.com/international-financial-aid/>
<http://www.iie.org/gilman>

Payment Schedule

Participation must be confirmed with the instructor by 10/31/08.

Payments should be made at the Business Office on the following dates:

11/3/08	\$600
11/14/08	\$400
12/1/08	\$470 - \$625 (TBA - final amount depends on airfare prices)

Tuition \$318 (3 credits, in-county tuition = \$106/credit hour)
(in-state tuition = \$236/credit hour, out of state = \$275/credit hour)

Students will register for BIO 250. The course is offered during Winter Intersession, 2009. Spring, 2009 financial aid can be used to pay for the course. It is recommended that a student eligible for financial aid inform, consult and confirm with the Financial Aid Office the status of financial aid available for the course and Spring 2009 semester.

** There are NO refunds once the initial payment has been made.*

Student Documentation

All student documents must be filed with the Office of Academic Affairs prior to departure.

Student Liability Insurance: Weblink <http://www.internationalstudent.com/insurance/> or see Chris Walters in the Office of the Dean of Administration. Your own insurance policy may cover you. Contact your provider.

Student Health Insurance: Students must have proof of health insurance coverage that is applicable throughout travel area. Your current insurance policy may cover you in Costa Rica. Check with your provider. Weblink <http://www.internationalstudent.com/insurance/>

Immunizations: Students participating in this course must provide proof of immunization as recommended by the US State Department. You are probably already covered, hepatitis being the exception.

Immunizations Weblink: <http://wwwn.cdc.gov/travel/destinationCostaRica.aspx>

In Costa Rica, the routine series of vaccinations is sufficient, including hepatitis, in conjunction with a malaria prophylactic; consult your physician.

Travel Tips Weblink: http://travel.state.gov/travel/tips/tips_1232.html

Each student is responsible for obtaining his/her Passport

Passport Weblink http://travel.state.gov/passport/passport_1738.html

Note: Accommodations cannot be made for those with physical or mental disabilities who, as a result of those disabilities, are not able to navigate the rough terrain and withstand the high heat and humidity characteristic of primitive conditions at the field station. Final determination of fitness will be made by the instructor. Contact Peter Skystad for further information.

Other Required Forms

Natural Resources and Wildlife Technology Program of Garrett College

WAIVER AND RELEASE OF LIABILITY

Study Abroad - Neotropical Biology Field School in Nicaragua and Costa Rica

THIS document affects your legal rights. It must be signed by you, the "Participant", whether you are an adult or minor. It must be signed by your parent or guardian if you are a minor participant under eighteen (18) years of age. Only a custodial parent or legally appointed guardian may sign for a minor participant. The custodial parent or legal guardian agrees to these terms individually and on behalf of the minor.

Reference in this Agreement to "I" or "we" include all who sign below unless otherwise clearly indicated. References to "parent" or "guardian" means custodial parent or legally appointed guardian.

The undersigned Participant represents that he/she has no physical, cognitive or emotional condition that would be a risk as that term is defined in this document.

Individuals with known physical, emotional or cognitive disability or impairment and individuals who have been diagnosed and/or treated for any such impairment must file with the Provider a written statement from a diagnosing or treating physician that such disability or impairment does not preclude the individual from use of equipment or participation in the activity or activities for which the individual seeks enrollment. Without limiting the generality thereof, a physical, cognitive or emotional disability or impairment which will preclude the individual from enrollment in an offered program or the use of equipment is one that would be a risk to the individual, students, instructors, or other participants in a proposed activity. Notwithstanding the foregoing, the Provider, its designated agents or employees, reserves the right to exclude any participant deemed unable to participate in the proposed activity for physical, cognitive or emotional reasons.

In consideration of being allowed to participate in any way in the programs, activities and related events (including the use of equipment, I, _____, the undersigned Participant, custodial parent or legal guardian of a minor Participant, understand, acknowledge, appreciate and agree as follows:

- (a) Outdoor field studies in neotropical environments of the type conducted by the Provider, the Natural Resources and Wildlife Technology Program (NRWT) of Garrett College, have inherent risks, dangers and hazards with respect to both the activity and the equipment used in such activity. The risk of injury from the activities involved in this program is low, although the potential for permanent injury, paralysis and death does exist, and while particular skills, equipment, and personal discipline may reduce this risk, the risk of serious injury is possible.
- (b) My participating in such activities and/or use of equipment may cause bodily injury resulting in death or permanent physical disability or impairment, illness, temporary or permanent.
- (c) The risks and dangers associated with participation in Provider's NRWT Program Neotropical Biology Field School in Nicaragua and Costa Rica include but are not limited to interaction with wildlife, exposure to water-borne pathogens, the forces of nature, equipment failure, errors in judgment by instructors, guides, members of the Provider's staff and other participants, including the improper assessment of the capabilities and conditions pertaining to the activities; equipment may be misused or may fail because of manufacturing defects or otherwise; the unpredictable force of nature, including exposure to the sun, cold, wind, hail, lightning, flash floods and other such phenomena. Activities may take place in remote places, significantly delaying emergency medical care and evaluation.

- (d) I willingly agree to comply with the stated and customary terms and conditions for participation. If, however, I observe any unusual or significant hazard during my presence or participation, I will remove myself from participation and bring such to the attention of Provider immediately.
- (e) Participant, and the parent or guardian of a minor Participant acknowledge and understand the description of activities and risks set forth herein is not complete and that all activities, whether or not described, may be dangerous and may include risks which are inherent and cannot be reasonably avoided without changing the nature of the activity. Participation in the activities can cause bites, stings allergic reactions, overexertion, heat stroke, hypothermia, illness due to contaminated water, burns, cuts, bruises, sprains, broken bones and other injuries and illnesses.
- (f) I understand and acknowledge that there are risks inherent in transportation to and from the activity site(s). These risks may include but are not limited to: driver error, vehicle system/component failure, accidents resulting from inclement weather conditions such as rain, snow, ice and fog and actions caused by third parties. I hereby assume all responsibility for losses, damages, injuries and death as a result of transportation to and from the activity site(s).
- (g) I, (the Participant or the parent or guardian of a minor Participant) understand the nature of the services and activities offered by the Provider and their risks. I acknowledge and expressly assume all risks of the activities whether or not described herein, known or unknown, inherent or otherwise. I take full responsibility for any injury or loss, including death, which I, or a minor child for whom I sign, may suffer, arising in whole or in part out of such activities. I hereby release, agree to indemnify and hold harmless the NRWT Program of Garrett College, its officers, officials, agents and/or employees, other participants, sponsoring agencies, sponsors, advertisers and, if applicable, owners and lessors of premises, public or private, used for the activity, all collectively referred to as the "Releasees"", with respect to any and all injury, disability, death or loss or damage to person or property associated with my presence or participation, whether arising from the negligence of the Releasees or otherwise, to the fullest extent permitted by law.

I understand and acknowledge that by execution of this Waiver and Release that I am releasing, discharging and waiving any claims or actions that I otherwise may have against the Provider, its owners, agents, officers and employees for loss and damage of every kind and nature arising from my participation, or the participation of a minor child for whom I sign, for the acts or omissions of the Provider, including acts of negligence; excluding, however, willful, deliberate or wanton acts or omissions or conduct amounting to gross negligence.

The venue of any dispute between the parties arising out of or in any way related to this Agreement shall be Garrett County, Maryland.

I hereby authorize and give full consent for Garrett College to copyright, publish, or use in public displays all photos in any medium in which I, the undersigned, appear while enrolled as a student or participant in the Garrett College NRWT Program Neotropical Biology Field School in Nicaragua and Costa Rica.

Participant understands and acknowledges that this Waiver and Release of Liability is intended to encompass all programs and activities of the NRWT Program at Garrett College in which Participant enrolls after the date hereof.

I willingly agree that I am responsible for my own health care both in taking appropriate safeguards and precautions in preparing for the trip and throughout the trip itself. Such medical safeguards include but are not are limited to having a physical examination by a licensed physician, securing and bringing with me needed medications and prescriptions, obtaining inoculations deemed appropriate by a licensed physician for travel to Costa Rica and procuring health services insurance for travel abroad.

I have read this release of liability and assumption of risk agreement, fully understand its terms, understand that I have given up substantial rights by signing it, and sign it freely and voluntarily without any inducement.

PARTICIPANT'S SIGNATURE

AGE

DATE

PARTICIPANT'S PRINTED NAME

STREET ADDRESS

CITY

STATE

ZIP CODE

FOR PARENTS/GUARDIANS OF MINOR PARTICIPANTS

(UNDER AGE 18 AT THE TIME OF REGISTRATION)

This is to certify that I, as parent/guardian with legal responsibility for this Participant, do consent and agree to his/her release as provided above of all Releases and, for myself, my child and our heirs, assigns, and next of kin, I release and agree to indemnify and hold harmless the Releases from any and all liabilities incident to my minor child's involvement or participation in these programs as provided above.

PARENT/GUARDIAN SIGNATURE

(Print Name)

Date Signed

Natural Resources and Wildlife Technology Program of Garrett College

Study Abroad - Neotropical Biology Field School in Nicaragua and Costa Rica

Medical Information

Answers to the following must be complete.

Please print or type all information.

Course/Activity Title: _____ Date(s) of course/event: _____

Your Full Name: _____ E-Mail: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Sex: Male Female Age: ____ Birth Date: _____ Occupation: _____

Home Phone: _____ Phone while in school: _____

The Natural Resources and Wildlife Technology Program strongly recommends that you see your doctor, discuss the rigors of working in neotropical environments, and receive a thorough physical.

Insurance: You are responsible for any medical expenses and should be covered by your own sickness and accident insurance. Are you covered by hospitalization and medical care insurance? **No** **Yes** If yes, please complete below.

Policy or Certificate Number _____ Group Number _____

Insurance Company Name _____

Address: _____

Pulse/Blood pressure: *(If you are over 40, or are overweight, or have had an inactive lifestyle, please have your blood pressure taken and recorded).*

Blood Pressure: ____/____ Pulse rate: _____ Date Taken: _____

Chronic health problems: (If you have any health problems which we should be aware of, please describe).

Neck, back, or shoulder pain or injury _____

Diabetes, seizures, or frequent or unexplained fainting or dizziness _____

Chronic illnesses _____

Medications and prescriptions you are taking _____

Allergies _____

Dietary restrictions _____

Previous injuries, illnesses, or other medical or emotional considerations or problems which might affect your participation on the trip _____

In case of emergency, please notify (Please Print)

Name _____ Relationship: parent legal guardian spouse

Address _____

Telephone (home) _____ (Work or Cell) _____

PLEASE READ

Consent is hereby given to attend the Natural Resources and Wildlife Technology (NRWT) Program's Study Abroad – Neotropical Biology Field School in Nicaragua and Costa Rica and permission is given for emergency anesthesia, operation, hospitalization or other treatment which might become necessary. The information provided above is a complete and accurate statement of the physical factors which may affect my/my child's participation in any NRWT Program activity. I realize that failure to disclose such information could result in harm to myself and my fellow participants, and I agree to indemnify and hold harmless the NRWT Program, Garrett College, and its assigns if all relevant information is not disclosed. I also agree to notify the NRWT Program and Garrett College (301-387-3000) should there be a change in my health prior to the activity.

I willingly agree that I am responsible for my own health care both in taking appropriate safeguards and precautions in preparing for the trip and throughout the trip itself. Such medical safeguards include but are not are limited to having a physical examination by a licensed physician, securing and bringing with me needed medications and prescriptions, obtaining inoculations deemed appropriate by a licensed physician for travel to Costa Rica and procuring health services insurance for travel abroad.

Participant/Employee Signature: _____ Date _____

Signature of parent or guardian if applicant is under age 18: _____

LA SUERTE BIOLOGICAL FIELD STATION MEDICAL INFORMATION FORM/PHYSICIAN NOTE OF GOOD HEALTH

La Suerte & Ometepe Biological Field Stations

Costa Rica and Nicaragua

PO BOX 55-7519

Miami FL 33255-7519

Fax: 305-666-7581

re from the US.

Applicable, parents or spouse must sign below.

Agreement by signing below.

Conditions that would hinder or prevent me from participating in the program. I understand that keeping health limitations confidential can result in medical conditions PRIOR to arrival.

Personnel on location must have the student's authorization to speak to their physician without restrictions, if necessary.

Personnel with the student's authorization speak to their physician without restrictions, if necessary.

Admission into any program based on recommendation from the student's physician, health limitations that would endanger the student, or other factors.

Students who suffer injuries or become ill at our sites will be treated at local clinics and, based on medical evaluation, sent home. La Suerte/

to sudden illnesses.

Transportation to clinics or emergency evacuation to the US.

Call the attention of staff members IMMEDIATELY, so that an appropriate response can be initiated.

while the student is at the field station.

above.

Participant must be in good health and have no physical or mental conditions that would hinder or prevent them from participating in the program or the class.

Fax: _____ Email: _____ Date: _____

RELEASE FORM

La Suerte & Ometepe Biological Field Stations
Costa Rica and Nicaragua
PO BOX 55-7519
Miami FL 33255-7519
Fax: 305-666-7581

PARTICIPANT: _____

I, the undersigned, desire to participate in the Neotropical Natural History Field Course (referred to in this Agreement as "the Program") of La Suerte/Ometepe Biological Field Station. I understand that La Suerte/Ometepe will not allow me to participate in the Program unless I also enter into this Agreement. Therefore, in exchange for permission to participate, I make the following representations and agreements.

1. I am of sound mind, in good health, and have no physical or mental conditions that would hinder or prevent me from participating in the Program.
2. I am eighteen years of age or older (if not, parents must sign Parental Release form)
3. The term "releasees" as used in this Agreement shall mean La Suerte/Ometepe Biological Research Station, and their members, employees, and agents utilized in connection with the Program.
4. No one associated with the Releases or with the Program has made any representation or promise to me about the matters covered in the Agreement, apart from what is written in this agreement. In other words, this document contains the entire agreement between the Releasees and me with respect to the matters covered by the Agreement, and I understand that the terms of this Agreement are contractual ones that are legally binding on me.
5. I understand that this Agreement is binding not only on the Releasees and me, but also on our respective representative heirs, estates, beneficiaries, successors, and assigns.
6. All legal claims must be settled in Costa Rica/Nicaragua where the stations are located.

RELEASE AND INDEMNITY PROVISIONS FOR BENEFIT OF RELEASEES

In order to receive permission from the Releasees to participate in the Program, I further agree to the following: I understand that travel, foreign travel, and staying in a foreign country involves risk and can be dangerous. By my participation in the Program, I voluntarily expose myself to these risks and dangers, whether expected or unexpected. I am aware of these risks and dangers and I am aware that I may obtain appropriate insurance coverage at my own expense. On my own behalf and on behalf of anyone who, as a result of my participation in the Program, can make a claim on my behalf or because of me, I agree to the following: I release and discharge the Releasees from any and all liability and responsibility for any loss, damage, or injury of any kind that I may suffer as a result of or in connection with my participation in the Program. This release covers any loss, damage, or injury caused by:

1. any criminal, illegal or unauthorized acts of third parties, including, but not limited to, any terrorist act, hijacking or sabotage
2. any social or labor unrest
3. any political conditions
4. any mechanical or constructional difficulties or conditions
5. any diseases, local laws or climatic conditions
6. any conditions, developments, actions or omissions outside of the control of the Releasees
7. any other expected or unexpected conditions, developments or risks connected with travel, foreign travel, or staying in a foreign country, even if I suffer the loss of money, property, health, or life, and irrespective of who is or may be at fault, or whose negligence, including the negligence of the Releasees, may have caused my loss, injury or death.

I HAVE READ EACH AND EVERY WORD IN THIS AGREEMENT. I FULLY UNDERSTAND ALL OF THE TERMS OF THIS AGREEMENT AND THEIR SIGNIFICANCE. I VOLUNTARILY SIGNED THIS RELEASE AND INDEMNITY AGREEMENT.

LEGAL NAME OF PARTICIPANT: _____ Age: _____

PARTICIPANT SIGNATURE: _____ Date: _____

Mark X below for the program you will participate in:

La Suerte BFS, Costa Rica Ometepe Biological Field Station, Nicaragua _____

Both La Suerte & Ometepe BFS: _____

Course/s Name & session: Neotropical Natural History (Winter Intersession)

Dates of stay on the field site/s: January 1-15, 2009

X your status while at site: Researcher _____ Student _____ Visitor _____

Email (Please type or print clearly) _____

Tel: _____

Full Current address: _____

Dates at this address: _____

Full permanent address: _____

Dates at this address: _____

THIS IS A RELEASE AND INDEMNITY AGREEMENT. ALL PARTICIPANTS WHO ARE MARRIED MUST HAVE THE FOLLOWING PROVISION SIGNED BY HIS/HER SPOUSE . AS A SPOUSE of _____, I, _____, have read each and every word in this Agreement and I fully understand what is contained in it. In exchange for permission for my spouse to participate in the Program, I voluntarily sign this Release and Indemnity Agreement. By signing, I agree to release and discharge the Releasees from any and all claims I may have, including any claims for loss or deprivation of my spouse's services, support, sexual relations, comfort, or attention that I may suffer as a result of, arising out of, or in connection with any of the events, conditions, or risks stated in the Agreement, even if such loss, liability, damage, or cost is based on the negligence of the Releasees.

LEGAL NAME OF PARTICIPANT: _____

FULL ADDRESS: _____

TEL: _____

FULL LEGAL NAME OF SPOUSE: _____

SIGNATURE OF SPOUSE: _____ Date: _____

FULL ADDRESS: _____

TEL: _____

NAME OF

COURSE AND FIELD SITE: Neotropical Natural History, La Suerte Biological Field Station

DATES OF COURSE: January 1-15, 2009

CERTIFICATE OF INSURANCE

1) My current insurance carrier has certified that my health and major medical insurance is currently valid to travel abroad. YES/NO

2) My insurance carrier does not cover me abroad. I will be purchasing Travel Protection Insurance. YES/NO

Insurance Carrier Name: _____

Policy # or Group #: _____

Insurer Address and Telephone: _____

I further understand that I am responsible for providing my coverage for health, accident, major medical and hospital insurance during the period that I will be a participant in the study abroad program for which I have been accepted.

NAME: _____ SIGNATURE: _____ DATE: _____

WAIVER FOR FIELD SCHOOL IN COSTA RICA LA SUERTE BIOLOGICAL FIELD STATION. ALL PARTICIPANTS OR VISITORS MUST SIGN THIS FORM

I, the undersigned, an applicant for admission to the Field School in Costa Rica/Nicaragua, do waive and release any and all claims against La Suerte/Ometepe Biological field Stations and its agents or its host institutions for any injury, accident, or damages caused by a vehicle, act of war, weather, strike, sickness, quarantine, terrorist activity, government restriction or regulation, or stemming from any act or omission of any airline, railroad, bus, hotel, taxi service, school, college, or other firm, agency (government or private), company, or individual. I also release La Suerte/Ometepe Biological Field Station and its agents and agree to indemnify them with regard to any financial obligations or liabilities that I may incur personally or any damage resulting from participation in this study program. I do waive and release all claims, demands, or causes of action against the La Suerte/Ometepe and its agents, host institution(s) or other facilities here and abroad, for any injury, loss, damage, accident, delay, or expense resulting from the use of any vehicle, any strikes, war, weather, sickness, quarantine, service, hotel, restaurant, school, college, or other firm, facility, company, or individual.

I understand that all travel involves some risk, and I hereby agree to assume such risk that is inherently part of foreign travel as a condition of my acceptance and participation in the Field School. I hereby waive and release any and all claims against La Suerte/Ometepe and its agents for any injuries, damages, or losses incurred in connection with terrorist activities, social or labor unrest, mechanical or construction difficulties, diseases, local laws, climatic conditions, abnormal conditions, or developments, or any other actions, omissions or conditions outside La Suerte and the Field School's control. By my participation in this program, I voluntarily assume any risks involved in such travel and presence abroad, whether expected or unexpected. I hereby acknowledge that I have been warned of such risks, and that I have been advised to take appropriate action and to govern myself accordingly. I am also aware that certain insurance companies do offer insurance against some or many of the perils noted, and that I may opt to insure myself, should I so choose.

I hereby grant La Suerte/Ometepe Biological Field Station and its agents full authority to take whatever actions they may consider warranted under the circumstances concerning my health and safety, and I fully release each of them from any liability for such decisions or actions as may be taken in connection therewith. I authorize La Suerte/Ometepe and its agents, at their discretion, to place me at my own (or my parent's or parents' or guardian's) expense and without further consent, in a hospital within or without the United States of America for medical services and/or treatment, or if no hospital is readily available, to place me in the hands of a local physician for treatment, should the need arise. If deemed necessary or desirable by La Suerte/Ometepe or its agents, I authorize them to transport me back to the United States by commercial airline or other accessible conveyance, and I assume responsibility for any expenses involved. Any funds advanced to me for any purpose will be reimbursed upon demand by either myself or my parent(s) or guardian. I have been advised that I must be covered by adequate health and accident insurance, valid in and outside the United States of America, during the entire period of the Field School.

I agree to comply fully with the rules of La Suerte/Ometepe and the Field School and its agents, its host institution(s) and/or travel companies. I agree that La Suerte/Ometepe has the right to enforce its standards of conduct and academic integrity and that, should I fail to comply with them, La Suerte/Ometepe has the right to terminate my participation in the Field School with no refund of monies paid. In the event of termination, I agree to be sent home at my own or parent's/parents'/guardian's expense. I understand that this is an organized program of study and that group standards must be observed. I will comply with the rules, standards, and instructions for student behavior. I hereby waive and release any and all claims against La Suerte/Ometepe Biological Field Station, the Field School, and their agents arising out of my failure to remain under such supervision or to comply with rules, standards, and instructions. I agree that La Suerte/Ometepe and its agents have the right to terminate my participation at any time for failure to maintain standards or for any actions or conduct which La Suerte/Ometepe and/or any of its agents deem to be incompatible with the interest, harmony, comfort, and welfare of the other students and academic

calendar as may be required. I understand that if program changes occur, they will not impair or weaken the goals, educational objectives, and academic standards of the Field School.

All references to the "parent" of the applicant shall include the legal guardian or other adult responsible for the applicant. I have read the terms and conditions set forth in La Suerte/Ometepe descriptive information on the Field School in Costa Rica/Nicaragua, and I agree that these constitute a part of my agreement with the Field School. I understand and agree to all of La Suerte/Ometepe terms as set forth in the descriptive information and in this Release. I further understand that this agreement shall take force only upon my acceptance into the Summer Field School by La Suerte/Ometepe and its agents.

Signature of Applicant: _____ Date: _____
Name (print clearly or type) _____

Travel Requirements and Things to Bring Checklist

- Passport and copy of passport
- Copy of proof of citizenship (birth certificate copy is best, if possible)
- College release form
- Health verification form
- Health insurance (travel insurance is optional)
- Release and health forms for La Suerte Biological Field Station
- Textbooks/field guides
- Hand lens or magnifying glass
- Binoculars (can also work as magnifying glass)
- Rite-in-the-Rain notebook
- Pens and pencils
- Backpack and daypack (fannypack)
- Poncho or rain gear
- Prescription drugs, anti-diarrhea medicine, aspirin, etc.
- Spending money in small bills (\$5 or \$10 bills)
- Travelers checks (in case cash is lost)
- Garbage bags and ziplock bags
- Clothes pins
- Digital camera
- Walking shoes (lots of mud and water)
- Water bottle
- Towel and washcloth
- Flashlight and batteries (headlamp is recommended)
- Extension cord
- Toiletries
- Sunglasses
- Bathing suit/cutoffs, etc.
- Energy bars and other snack food items
- Insect repellent
- Laptop computer (recommended)
- Jumpdrive, thumbdrive, memory stick, etc. (minimum of 1gb of storage space recommended)