Syllabus

Thailand International Field Course: December 2011 / January 2012

Vertebrate Research Design and Field Survey Techniques

COURSE DESCRIPTION

This course provides participants with brief overview of Thailand’s culture and conservation challenges and then focuses on applying a set of well-developed tools for designing and carrying out surveys to assess large mammal population characteristics, size, and habitat preferences. The course will have three major components:

- 2 day trip up Thailand’s major waterway on a live-aboard barge designed for research and education;
- ~2 weeks of instruction and fieldwork at Thailand’s premier conservation research site (Khao Nang Rum Wildlife Research Center) in the heart of the Western Forest Complex;
- 2 days at Bongborapet wetlands to mist net and band birds.

DATES

December 27, 2011 – January 15, 2012 (~3 Weeks)

INSTRUCTORS and KEY CONTACTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Course Role</th>
<th>Email</th>
<th>Phone (Thailand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dave Smith</td>
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</tr>
</tbody>
</table>
EDUCATIONAL OBJECTIVES

At the end of the course, students will have:

• experienced the natural and cultural beauty and diversity of Thailand
• gained broad knowledge of major conservation issues in Southeast Asia
• gained applied experience in designing and executing ecological field investigations for large mammals
• gained applied experience with methods to study large mammals and birds
• gained broad knowledge of landscape-scale conservation strategies

and will be able to:

• Use basic map, compass and GPS techniques to effectively navigate and collect georeferenced data in the field
• Identify and prioritize factors affecting the survival and persistence of large mammal populations in Southeast Asia
• Identify and prioritize key considerations in designing robust surveys for addressing common large mammal research and management questions
• Identify and act upon key logistical considerations for survey implementation
• Appropriately apply strategies to maximize the value of teamwork in research and collaborative problem solving;

READING ASSIGNMENTS

See the bibliography of required readings below. At least some readings will be made available prior to departure to Thailand and most will be part of a course packet to be distributed to all participants.

Thai History and Culture

• Excerpts from LonelyPlanet online and other sources

Ecological Profiles: Thailand and the Region


• Map of the Western Thailand Conservation Corridor
• Map of the Western Forest Complex

Survey Design


• Chapter 4: Design: Matching Data Collection to the Scope of the Question
• Appendix B: Deciding on Sample Size
Survey and Monitoring Techniques


Tiger and Prey Research at Huai Kha Khaeng Wildlife Sanctuary


Management and Conservation in Thailand’s Western Forest Complex


WHAT YOU CAN EXPECT FROM YOUR INSTRUCTORS

You can expect us to:

• plan and facilitate learning opportunities that will help you meet the course goals and objectives
• challenge you to find and apply creative solutions to complex problems
• provide constructive feedback on your performance
• be open to constructive feedback on our performance
• allow you to wrestle with ideas in order to shape your own conclusions
• have a sense of humor

ASSIGNMENTS and EVALUATION

Student evaluation is “competency-based”. All students are expected to and will be given the opportunity to develop specific competencies to earn an A in the course. An “I” (“Incomplete”) will be only under special circumstances following discussion with instructors.

Competencies are developed and assessed through readings, structured fieldwork, written assignments (see below), presentations and group discussions.

To ensure students are exposed to key background and context, readings from the course packet will be assigned on a periodic basis.

Active dialogue is central to the learning process and to successful collaborative research. In this class students are required to participate in group work, activities, and discussions. Participation will help
instructors to focus the course on topics of interest to the class and to assess student’s mastery of objective competencies. A variety of group activities are designed to help you develop field and collaboration skills.

A group research project will review 5 years of tiger camera trap data to map the distribution of individual tigers and estimate the number of breeding tigers based on length of residency. The group will produce a written and oral presentation to the staff of Khao Nang Rum at the end of the course.

Assignments and means of assessment are shown below. Due dates are shown with the daily course schedule (see below).

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Assignment Format / Products</th>
<th>Mode of Assessment</th>
<th>Due</th>
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</thead>
<tbody>
<tr>
<td>Various Readings</td>
<td>Assigned in advance</td>
<td>Group discussion, use of concepts in journal and other written assignments</td>
<td>To be assigned</td>
</tr>
<tr>
<td>Research Team Leaders</td>
<td>Each student takes an Active Leadership/Coordination role for one day</td>
<td>Assessment of morning briefing and evening debrief</td>
<td>To be assigned</td>
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<tr>
<td>Daily Journal</td>
<td>Journal Entries</td>
<td>Selective reporting from Journal and review by instructors</td>
<td>To be assigned</td>
</tr>
<tr>
<td>Navigation and Data Collection Exercise</td>
<td>Datasheet, map</td>
<td>Worksheet / Evaluation of mapped data as a group</td>
<td>2 January</td>
</tr>
<tr>
<td>Pellet Count Exercise</td>
<td></td>
<td>Group discussion</td>
<td>2-4 January</td>
</tr>
<tr>
<td>Presence/absence survey</td>
<td></td>
<td>Group discussion</td>
<td>7-9 January</td>
</tr>
<tr>
<td>Daily Data Quality Check</td>
<td>Datasheets / Data Entry into database</td>
<td>Assessment by daily research team leaders</td>
<td>Daily</td>
</tr>
<tr>
<td>Group Research Project (GRP)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data collection and analysis</td>
<td>Camera trap photos/HKK maps</td>
<td>Evaluation by instructors</td>
<td>10 January</td>
</tr>
<tr>
<td>Final Report</td>
<td>Powerpoint Presentation</td>
<td>Evaluation by instructors</td>
<td>11 January</td>
</tr>
<tr>
<td>20 photo contributions</td>
<td></td>
<td></td>
<td>14 January</td>
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## General Daily Schedule - Thailand Field Course 2010-2011 (plans may change)

<table>
<thead>
<tr>
<th>Date</th>
<th>AM Field Session</th>
<th>PM Session</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-Dec (Tues)</td>
<td>Congregate at MSP Airport</td>
<td>Departure for Thailand</td>
<td>Arrive Bangkok (late), Proceed to Hotel in Bangkok</td>
</tr>
<tr>
<td>28 Dec (Wed)</td>
<td>Somewhere over the Pacific</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 Dec (Thurs)</td>
<td>Board Chao Phraya Barge – Welcome and relaxation</td>
<td>Bangkok to Pathom Thani Introduction to Thai culture and history</td>
<td></td>
</tr>
<tr>
<td>30 Dec (Fri)</td>
<td>En route to Ayutthaya on the river</td>
<td>En route to Ayutthaya on the river</td>
<td>Explore Ayutthaya</td>
</tr>
<tr>
<td>31 Dec (Sati)</td>
<td>Travel to Cha-am</td>
<td>New Year’s Eve</td>
<td>New Year’s Eve</td>
</tr>
<tr>
<td>1 Jan (Sun)</td>
<td>Depart for HKK</td>
<td></td>
<td>Arrive HKK</td>
</tr>
<tr>
<td>2 Jan (Mon)</td>
<td>AM course and tiger briefing; prep for pellet count research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Jan (Tues)</td>
<td>Students camp at HNT and do pellet counts with Tom to estimate absolute prey abundance</td>
<td>Camp at HNT</td>
<td></td>
</tr>
<tr>
<td>4 Jan (Wed)</td>
<td>Continue pellet counts</td>
<td></td>
<td>Camp at HNT</td>
</tr>
<tr>
<td>5 Jan (Thurs)</td>
<td>Return to KNR</td>
<td>Free Time</td>
<td>Discuss presence absence surveys</td>
</tr>
<tr>
<td>6 Jan (Fri)</td>
<td>4 teams conduct presence/absence surveys near KNR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Jan (Sat)</td>
<td>Depart for Khao Ban Dai</td>
<td>Set up and monitor camera traps</td>
<td>Camp at KBD</td>
</tr>
<tr>
<td>8 Jan (Sun)</td>
<td>KBD camera trapping</td>
<td>KBD camera trapping</td>
<td>Camp at KBD</td>
</tr>
<tr>
<td>9 Jan (Mon)</td>
<td>Return to KNR</td>
<td>Free Time</td>
<td></td>
</tr>
<tr>
<td>10 Jan (Tues)</td>
<td>Project analysis</td>
<td></td>
<td>Project analysis</td>
</tr>
<tr>
<td>11 Jan (Wed)</td>
<td>Final Project Presentation</td>
<td>Depart for Bongborapet</td>
<td></td>
</tr>
<tr>
<td>12 Jan (Thurs)</td>
<td>Mist netting birds at Bongborapet</td>
<td>Boat Trip</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Activity</td>
<td>Location</td>
<td>Activity</td>
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</tr>
<tr>
<td>13 Jan (Fri)</td>
<td>AM Mist netting</td>
<td></td>
<td>Depart for Bangkok</td>
</tr>
<tr>
<td>14 Jan (Sat)</td>
<td>Free Day in BKK</td>
<td>BKK</td>
<td>Dinner on own</td>
</tr>
<tr>
<td>15 Jan (Sun)</td>
<td>Depart for US (Early Morning Departure)</td>
<td></td>
<td>Arrive in US (Late Night)</td>
</tr>
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COURSE POLICIES

Accommodations for Students With Disabilities: Participants with special needs are strongly encouraged to talk to the instructors as soon as possible to gain maximum access to course information. All discussions will remain confidential.

University policy is to provide, on a flexible and individualized basis, reasonable accommodations to students who have documented disability conditions (e.g., physical, learning, psychiatric, vision, hearing, or systemic) that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact Disability Services and their instructors to discuss their individual needs for accommodations. Disability Services is located in Suite 180 McNamara Alumni Center, 200 Oak Street. Staff can be reached at http://ds.umn.edu or by calling 612/626-1333 (voice or TTY).

Diversity and Collegiality: This course draws students from a variety of backgrounds and with a wide diversity of personal experiences. This diversity is one of the most enriching aspects of the course. Because a key to optimal learning and successful teaching is to hear, analyze, and draw from a diversity of views, the instructors expect collegial and respectful dialogue across disciplinary, cultural, and personal boundaries.

Student Health: Traveling in Asia presents some unique health concerns—none of which should present barriers to a successful trip. As a group, we will be going over strategies to stay healthy throughout the duration of the trip. Thailand has a very well developed medical infrastructure as evidenced by the numbers of people that travel from all over the world to receive medical treatment there. We have developed a comprehensive plan to respond to medical emergencies throughout the trip and we will go over this in detail as a group.

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student’s ability to participate in daily activities. University of Minnesota services are available to assist you with addressing these and other concerns you may experience before and after the trip. You can learn more about the broad range of confidential mental health services available on campus via http://www.mentalhealth.umn.edu/.

Student Conduct: While student behavior and attitude is important in any learning situation, the cross-cultural aspect of this course requires a particular attention to conduct in a variety of situations. Participants are expected to take an active interest in learning about and respecting Thai customs and to understand that their conduct (including actions, attitudes, verbal and non-verbal communication, etc.) will reflect on the University of Minnesota and UMN partners of the research project of which we are a part. Students whose behavior is disruptive either to an instructor or to other students may not be allowed to participate in all activities. Students whose behavior may violate the University Student Conduct Code may be ejected from the course. Instructors take an active interest in ensuring that students have appropriate outlets for sharing / expressing frustrations and / or other issues that may affect attitudes and conduct and we encourage students to be proactive about communicating such issues so that they may be addressed in an appropriate and supportive way.

Sexual Harassment: University policy prohibits sexual harassment as defined in the University Policy Statement (http://www1.umn.edu/regents/policies/humanresources/SexHarassment.html) adopted on December 11, 1998. Complaints about sexual harassment should be reported to the University Office of Equal Opportunity, 419 Morrill.

Academic Dishonesty: Students are expected to do their own assigned work. If it is determined that a student has engaged in any form of Academic Dishonesty, he or she may be given an “F” or an “N” for the course, and may face additional sanctions from the University. Academic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course. See http://www1.umn.edu/regents/policies/academic/StudentConductCode.html.

Participation: Due to the interactive and participatory nature of this course, attendance for all course activities is required. Students are expected to apply themselves to complex and collaborative problem-solving activities and to reflect on their performance in working individually and with other group members.
### Thailand Field Course 2011-2012: Packing Notes Checklist and Suggestion

#### Basic Clothes:
- Tevas / Chacos / simple flip-flops
- Hiking shoes (anything from sturdy running shoes to lightweight boots)
- Shorts (1+)
- Comfortable long pants (2) (sturdy enough for fieldwork)
- Long sleeve shirt (1+) (sturdy enough for fieldwork)
- T-shirts (2+)
- Set of casual travel clothes (for airplane, going out in Bangkok, etc.)
- Underwear
- Sleepwear
- Swimwear

#### Outerwear
- Fleece pullover or jacket (1+ layers)

#### Personal Items:
- Passport
- Xerox copies of passport (front picture page)
- Cash / ATM card (see below)
- Towel
- Personal toiletries (toothbrush, toothpaste, soap, comb, razor, etc.)
- Glasses / contact lenses
- Regular Medications
- Sun screen
- Sunglasses
- Insect repellent
- Pens

#### Equipment:
- Travel duffel or large backpack
- Daypack
- Warm Sleeping Bag (to 30° F)
- Digital Camera and memory
- Headlamp
- Batteries for all necessary items

#### Optional:
- Laptop Computer
- Multi-tool or knife
- Binoculars
- GPS
- Compass
- Water bottle (reusable)
- Journal
- Lonely Planet Guidebook

### Additional Comments/Suggestions

#### Footwear
You’ll want some basic, open-air sandals or tevas for everyday use. For the forest (hiking and fieldwork), you will want comfortable closed-toed shoes of some sort. I usually wear supportive running shoes that I don’t mind getting wet crossing streams or getting rained on.

#### Large Duffel/Backpack
It will be easiest if everyone has one big bag for travelling with most of your stuff. I use a large rolling duffel that I can stick everything into but that can be packed efficiently with other bags in the back of a van or on the barge.

#### “Daypack”
Bring a larger variety daypack (good for general use while on the plane, traveling by vehicle, etc.) that could double as a small overnight pack. You do not need to go out and buy a new pack if you have or can borrow something in this basic size class.

#### Sleeping Bag
You will likely be using your sleeping bag for sleeping during the ~12 days or so that we are at the field station. Your bag should be warm enough for nights down to about 35° F.

#### Camping
We will provide all necessary gear (besides the backpack as described above) for camping including a comfortable mosquito-proof netted hammocks and tarp combo. One of the most useful things to have for camping and general use is a good personal headlamp (in the checklist above).

#### Cash / ATM card
I wouldn’t carry more than ~$150 cash. ATMs are abundant and cash has no value at the research station. Most students last year spent no more than about $200 of their own spending money even with the independent meals during the course.