Plant Systematics in Panama
“Spring Semester”, 2015

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Eligibility & Application

• PBIO 1150 required; another flora course, or ecology course, strongly recommended
• PBIO majors and grads get first priority
• Seriously interested students must apply and interview by end of spring (I need a minimum # to confirm program and assess likely budget)
• Applications and interviews must be completed by end of 2\textsuperscript{nd} week of Fall semester, when program closes to further participants (Dr. Ballard will purchase airfares 3\textsuperscript{rd} week)
• $500 deposit due 2 weeks after Dr. Ballard accepts and nominated you to program (subtracted from program fee)
Preparation

• Fall semester orientation/lecture meetings
  – Required!
  – Meet every other week in late afternoon/early evening
  – Introduction to W Panama’s flora, patterns of diversity, and ecological zones/forest types
  – Lectures reviewing plant systematics methods, major vascular plant lineages
  – Travel-related workshops
  – exam on this material at end of fall semester (1/3 of course grade)

• Pregistration in PBIO 4090/5090 in early Fall, for Spring
Field Course Itinerary

- 29/30 December 2014-9 January 2015 (11/12 days)
- Group international flight between Columbus and Panama City (begin date depends on group size = tuition revenue)
- Day 1--excursion to Campana National Park west of Panama City, for montane & cloud forest vegetation, with Sendero Panama; breakfast & lunch provided
- Days 2-8/9—on Isla Colón in NW Panama
- Day 9/10—Panama City area
- Day 11/12—return flight to Ohio
Campana National Park
ITEC Field Station

- Institute of Tropical Ecology & Conservation field station will be our “base camp” on Isla Colón; room and board provided
- Short morning and post-lunch lectures highlighting the day’s plant families, followed by half-day field trips
Isla Colón and the Bay
ITEC Field Station

- Student accommodations consist of 4- to 6-bed dormitory rooms in large cottage
- Beds ± comfortable, sheets provided (blankets somewhat scarce, may want to bring pyjamas)
- Mosquito nets provided
- Rubber boots preferred field wear; if you have odd-sized feet, may be important to bring cheap boots (will want to leave there, prob.)
ITEC Field Station
ITEC Field Station

- Meals not fancy but nutritious, tasty and plentiful
- Vegans or vegetarians should factor in extra money to purchase nuts, p-nut butter etc. to supplement meals
- Cantina has some snacks & beverages, you can pay staff to get more for you while there
- Station area can feel cool in evenings--hoodie or windbreaker, long sleeves and pants then
- Cold showers (ugh!), highly annoying “no-see-ums” on beach when breeze is low! Bring long-sleeved garments to wear, insect repellant; mosquitoes are not bad
General Daily Activities

- 7:30-8:00am—breakfast [required for everybody]
- 8:30-9am—morning lecture on day’s plant families
- 9:00-12noon—morning field work
- 12:00-12:30pm—lunch
- 1:00-4:00pm—afternoon field work
- 4:00-6:00pm—free time [snorkeling?!]
- 6:00-6:30pm—supper
- 6:30-8:00pm—evening plant review and specimen processing
- 8:00pm on—relaxation
Other Items

- Farewell dinner in Bocas town on Day 8/9 before flying next day to Panama City [included in program]
- Laundry can be turned in ca. once per week ($3 per load, washed/dried/folded)
- If 15+ students go, Harvey will hire professional tree climber Joe Maher, who will take small groups of us into the rainforest canopy to study epiphyte diversity throughout the week at ITEC; and course is 12 days
Field Course Content

• Study 100 genus- and species-rich vascular plant families, with focus on field ID traits and keying with various resources; 10-12 families covered per day
• Learn ca. 120 ecologically or economically important genera and species
• Will learn new plants and simultaneously review previous groups each day, and take both study samples for evening review and collections for permanent specimens
• 2 field exams, 50 points each, added to fall exam for total course grade (out of 150 points)
Field Course Content (cont.)

- Evening reviews will use study specimens and photos
- Will press and dry identified specimens, enter label data in a spreadsheet; plants will be dried, labels printed, before donating our collection to STRI herbarium prior to departure for Panama City
- Secondary observations in the field on ecological patterns of diversity, evolutionary adaptations, and plant-animal interactions
Other Stuff to Think About

• Our U.S. cellphones won’t work; I’ll have an “emergency” in-country cellphone given to me once we get there
• No internet access at ITEC, but Bocas has several internet cafes
• We’ll be packing moderately light—see next slide
• Electricity from generator 6-10pm; no electrical appliances outside of laptops, battery chargers!
Packing

- 2-3 sets of field clothes (long-sleeve shirts, long-sleeve pants)
- 2-3 sets of casual clothes (t-shirts, shorts, 1 pr long pants for evening)
- Swimsuit (plus snorkel gear if you want it)
- Towel, washcloth
- Toiletries (plus a few conveniences), insect repellant
- Sunglasses, hat, hand lens, field guide
- Hoodie sweatshirt and/or windbreaker

→ pack somewhat light and submit laundry once during the trip
## Costs of Program

Worst case (10 undergrads, 0 grads)—11 days

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Program fee [billed]</td>
<td>$ 845</td>
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<tr>
<td>Ed Abroad administration fee [billed]</td>
<td>150</td>
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<tr>
<td>Passport</td>
<td>165</td>
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<tr>
<td>Immunizations (hepatitis A, typhoid)</td>
<td>160</td>
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<tr>
<td>Handlens, field guide, snorkel gear</td>
<td>125</td>
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<tr>
<td>Food (2 suppers in PC, airports)</td>
<td>70</td>
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<tr>
<td>Incidentals (snacks, internet, laundry)</td>
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Program Fee breakdown

The Program Fee covers these travel costs:

• International flight, Columbus-Panama City
• In-country flight, Panama City-Bocas
• 3 nts lodging at Hotel Marbella in Panama City
• Excursion to Campana National Park
• Room & board, use of facilities at ITEC station
• Tree climbing on Isla Colon, if enough students
• Farewell dinner in Bocas
• Harvey’s expenses
“Out of Pocket”

- Passport—get > 4-6 weeks before program begins (expedited service costs ca. $80 more)
- Immunizations—hep A and typhoid shots at Hudson Health Center at least 4 weeks before program (late Fall, before you head home)
- Food in Panama City, airports
- Field guide (ca. $25 right now on Amazon.com)
- Snorkel gear rental through OU’s Dive Shop; bring your own instead, if you have it