“Island Plant Systematics & Evolution” in Hawaii Intersession, 3-12 January, 2013

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Hawaii course: Basic details

- PBIO 4/5850 (“Global Studies in Plant Biology”)
- Seniors (and juniors?) get Tier III credit
- All activities on Kauai (oldest, most diverse)
- Hard-core systematics and evolution course
- UG prereqs: PBIO 248 (Trees & Shrubs) or PBIO 309 (Plant Systematics), or equivalent
- 16 students max
- Priority: seniors > juniors > sophomores
Kauai
Main Topics

• Families, genera, and characteristic and rare species in each community
• Evolutionary adaptations to oceanic island life
• Adaptive plant radiations
• Biogeography of the Hawaiian island flora
• Common invasive plants, their impact on native vegetation, and conservation efforts
Plant radiations

[Hawaiian honeycreeper] 'Iwi or Scarlet Hawaiian Honeycreeper (Vestaria coccinea)

Violets (Viola)

Iliau (Wilkesia gymnoxiphium)

Lobelioid (Cyanea)
Preparation

• Students submit an application with DARS by 1 June; $200 nonrefundable deposit required by end of first week of fall semester
• 7 mandatory 1-hour orientations during fall semester, will cover Hawaiian island geology and climate, overview of major plant families, genera and species, natural communities, conservation, details of packing
• Each student gives a 15 minute seminar on a family during the last 5 orientation sessions
Course Schedule

• Fly as a group to Lihue on Thur., 1/3 (lodge 5 nights at NTBG McBryde Garden)
• Study lowland communities and flora Fri., 1/4-Sun., 1/6; exam 1 on Sun. afternoon; group supper
• Day off on Mon., 1/7
• Drive to Alakai Swamp Tue., 1/8 (lodge 3 nights at Camp Sloggett)
• Study highland flora Tue., 1/8-Thur., 1/10; exam 2 on Thur. afternoon
• Drive to Lihue, fly back to Ohio on Fri./Sat., 1/11-12
Typical Class Day

• 8am—Everybody up and ready
• 8-9am—Breakfast
• 9-12—Mini-lecture on day’s plant groups and activities, followed by field studies
• 12-1pm—Lunch
• 1-5pm—Field studies
• 5-6pm—Free time
• 6-7:30pm—Supper
• 7:30-8:30pm—Review
Lowland Kauai
National Tropical Botanical Garden (North Shore)
Upland Kauai
Climate and Dress

- Lowlands will be 70s-80s
- Highlands will be 50s-60s; Alakai Swamp may have spontaneous cold rain, fog!
- Bring range of clothing for hot sunny and cool/cold wet weather (December/January are “wet season” in Hawaii)
- Field gear: sturdy boots for some rugged hiking, hat, water bottle, sunblock, etc.
Accommodations and Meals

- Lowland housing in houses and a yurt, at NTBG McBryde Garden
- Alakai Swamp housing in small dorm-style rooms with multiple beds at Camp Sloggett
- Both provide bedding and linens
- We will purchase food at supermarkets and prepare “communal” meals
- I will cover $20 per person for a group supper on Sunday evening, prior to day off
Lowland housing-McBryde Garden
Lowland housing—NTBG McBryde Garden

- 2 houses, Theobald sleeps 9 (using couches in living room), Papalina sleeps 6-7; houses have full kitchens
- "Weatherport" yurt (wooden floor, canvas walls, electricity) sleeps 10
- Embedded in garden, so will be a valuable teaching location and pleasant site

Theobald House
More pics of houses at NTBG

Papalina House

Inside Theobald House
Alakai Swamp-Camp Sloggett

- Dorm-style housing in "Lodge", "Bunkhouse"
- Kitchen in Lodge
- We supply sleeping bag, towel; they supply pillows, blankets, kitchen supplies
Course Administration

• You must be a full-time student in spring semester to participate
• You MUST keep 4 credits (undergrad) or 5 credits (grad) free in spring semester
• Summer Sessions will register you for PBIO 4850 or 5850 later in fall semester
• I will use your tuition to cover most of the course costs (everything except food)
• Final grade on spring semester transcript
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<td>Program fee</td>
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<td>Summer Sessions admin fee</td>
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<td>Snorkel gear rental (optional)</td>
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Packing

• ONE small or medium suitcase, duffle or backpack:
  – 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)
  – field boots, flipflops/sandals, socks & other undies
  – Swimsuit (plus snorkel gear if you bring it)
  – Toiletries (plus any meds), insect stuff, sunblock
  – Sunglasses, hat
  – Hoodie sweatshirt, or sweater, or lined windbreaker
  – Towel and washcloth
• Sleeping bag
• Daypack, water bottle, handlens, camera