Developing a long-term study in Costa Rica

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- Costa Rica
  - 4.5 million people
  - Ecotourism pioneer
  - Abolished military in 1948
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- Biodiversity of longhorned beetles
  - Frank Hovore, Ian Swift, INBio
  - Swift et al. 2010 checklist
- Expanding to additional taxa
  - Coleoptera, Diptera, Hymenoptera, Lepidoptera, etc.
- Goals
  - Faunal surveys, checklists
  - Life histories, host plant associations
  - Education, training CR biologists
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1. Monteverde Cloud Forest Biological Reserve

- Private reserve owned by Tropical Science Center (TSC)
- Continental divide, Pacific & Caribbean gradients
- Life zones: premontane and lower montane forest
- 1850 m elevation
- 2500-5000 mm rainfall annually
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1. Monteverde Cloud Forest Biological Reserve
   - Good infrastructure & facilities
   - Lab space
   - Weather station
   - Guides & field assistants
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1. Monteverde Cloud Forest Biological Reserve
   - Lodging & dining
   - Researchers, faculty, students
   - Café, gift shop
   - Laundry, Wi-Fi
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1. Monteverde Cloud Forest Biological Reserve
   - Extensive trails, remote shelters
   - Very popular with birders
   - Trail cameras: jaguar, puma, margay, ocelot, deer, tapir, peccary, fox, monkey, etc.
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Psalidognathus modestus
(Cerambycidae: Prioninae)
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2. San Luis Biological Reserve

- Private reserve also owned by TSC
- Life zone: tropical moist forest (premontane transition)
- 600-800 m elevation
- 1950-3000 mm rainfall annually
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*Dynastes hercules* (Scarabaeidae: Dynastinae)
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3. Los Cusingos Wildlife Sanctuary

- Private reserve also owned by TSC
- Home of birder Alexander Skutch
- Pacific premontane very humid forest
- 78 ha, 800 m elevation
- Base of Chirripó National Park, 3820 m peak highest in CR
- Trail system, rustic lodging
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4. Bijagual Ecological Reserve

- Private reserve owned by CR & US non-profit
- 4 km west of Braulio Carrillo National Park and La Selva/OTS
- 290 ha, 300-400 m elevation
- 5500 mm rainfall annually
- Caribbean lowland rain forest
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4. Bijagual Ecological Reserve

- 17 km trail network
- Rustic lodging
- Habitats: old forest, selectively logged forest, riparian forest, secondary forest, natural regeneration, reforestation areas, swamps, & arboretum
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4. Bijagual Ecological Reserve

- Irregular topography creates two micro watersheds
- Drains into two rivers: Río Bijagual & Río Tirimbina
Callipogon barbatum
(Cerambycidae: Prioninae)
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5. Santa Rosa National Park
   - 1st national park created in CR
   - Within the Guanacaste Conservation Area
   - Variety of habitats: savannas, deciduous forest, marshlands, & mangrove woodlands
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5. Santa Rosa National Park
   - 500 sq km
   - Dry tropical forest
   - Cattle grazing
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Stenobatyle eburata
(Cerambycidae: Cerambycinae)
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Permitting Agencies

- MINAE - “Ministerio de Ambiente y Energía”
- SINAC - “Sistema Nacional de Áreas de Conservación”
- 11 areas of conservation
- Each conservation area must approve any research
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- Collecting Permit Process
  - All documents in Spanish!
  - Project description
  - Letter of CR institutional support
  - Completed application for permission to conduct research
  - CV for each investigator
  - Valid MINAE scientific passport
  - $30 fee each investigator
  - Permit valid for 6 months, and report must be submitted to SINAC within 6 months of event
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- **Export Permit Process**
  - Completed form requesting permission to export specimens
  - Estimated number of specimens
  - Hardcopy of signed form must accompany specimens
  - New request required for each export event
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100 liter drum of 95% EtOH
$200 (or about $8 per gallon)
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Humberto Lezama
University of Costa Rica
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- Purdue Entomology
  New Study Abroad Courses
  - May 2016: “Biodiversity and Conservation in the Tropics”
  - May 2017: “Forensic Entomology”
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Monteverde Cloud Forest Reserve
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