Project Introductions

- Bird Inventory of Forested Beach Fringe in Southeast Alaska (SEAK)

  Objective: Evaluate effectiveness of forested beach buffers for breeding birds

- Yukon-Charley Rivers NP Bird Inventory Project (YUCH)

  Objectives: 1) Design and conduct an avian inventory suitable for land areas with minimal access.
  2) Develop a long-term monitoring protocol for birds in YUCH

Methods

	YUCH	SEAK
Method	VCP	VCP
Length of count	8 min.	8 min.
Split intervals	Yes (0-5; 5-8)	No
Distance b/w points	>400m open >200m closed	150m closed >75m from edge in open
points/day /crew	12	12
# of crew	Four 2-person	Two 2-person
Habitat data	Yes – 50m radius	Yes – 50m radius
Survey window	0230-0930	0300-0900
No. points (2 years)	1415 (1 visit)	438 (2 visits)

Field Season Prep

Hire best qualified personnel

- point count experience
- experience with distance estimation
- vegetation id experience
- backcountry experience
- physically fit
- rehire

Determine best daily and seasonal sampling periods for your area

Prepare all maps, datasheets, logistics, backup plans, alternate sampling locations, etc.

Training Program Effort

- **Beach Buffer Program**
  -5 people were trained each year
  -2.5 weeks of training (12 days, 120 hours)
  -training conducted in remote cabin (1 week) and in field and classroom (1.5 weeks)

- **Bird Inventory Program**
  -9 people were trained each year
  -3 weeks were devoted to training (15 days, 120 hours)
  -training conducted in classroom and in field situations

Training Topics

- Bird ID (visual and aural)
- Distance estimation
- Vegetation ID, habitat classification
- Data collection/recording
- Safety
- Orienteering, GPS use

Visual/Aural Bird Identification

- Hire experienced personnel
- Birds of Alaska CD (used in office and in field)
- Bird Master Software
- Training guides and phrases
- Practice in field (pair up more experienced birders with less experienced)
- Address potentially confusing bird calls (e.g. DEJU and OCWA)
- Time spent on this topic was 3 days (~30 hours)

Distance Estimation

- Measure distances in the field with tape measure
- Flag distances
- Pace distances
- Use Rangefinder
- Practice with known distance recordings in field
- Practice with birds in field
- All training was conducted in a variety of habitats matching those actually encountered in field work
- Time spent on this topic was 5 days (40 - 50 hours)

Vegetation Identification
Habitat Classification

- Identification of tree, shrub and herb species present in study area
- Habitat classification
- Percent cover and height classification
- Slope, aspect and elevation
- Plant association guides
- Time spent on this topic was 1-3 days (10 - 24 hours)

Data Collection/Recording

- Familiarization with data sheets
- Emphasize checking of datasheets
- Assure adequate understanding of data to be collected to allow for modification of data sheet in the field
- Reduce subjectivity (e.g. noise, weather)
- Time spent on this topic was 0.5 - 1 days (5 - 8 hours)

Safety

- Boat safety and operation
- Helicopter and fixed-wing safety
- Shotgun training
- Communication (radio/sat. phone)
- First Aid/CPR
- Emergency procedures
- Bear safety
- Time spent on this topic was 2 - 4 days (20 - 34 hours)

Orienteering and GPS Use

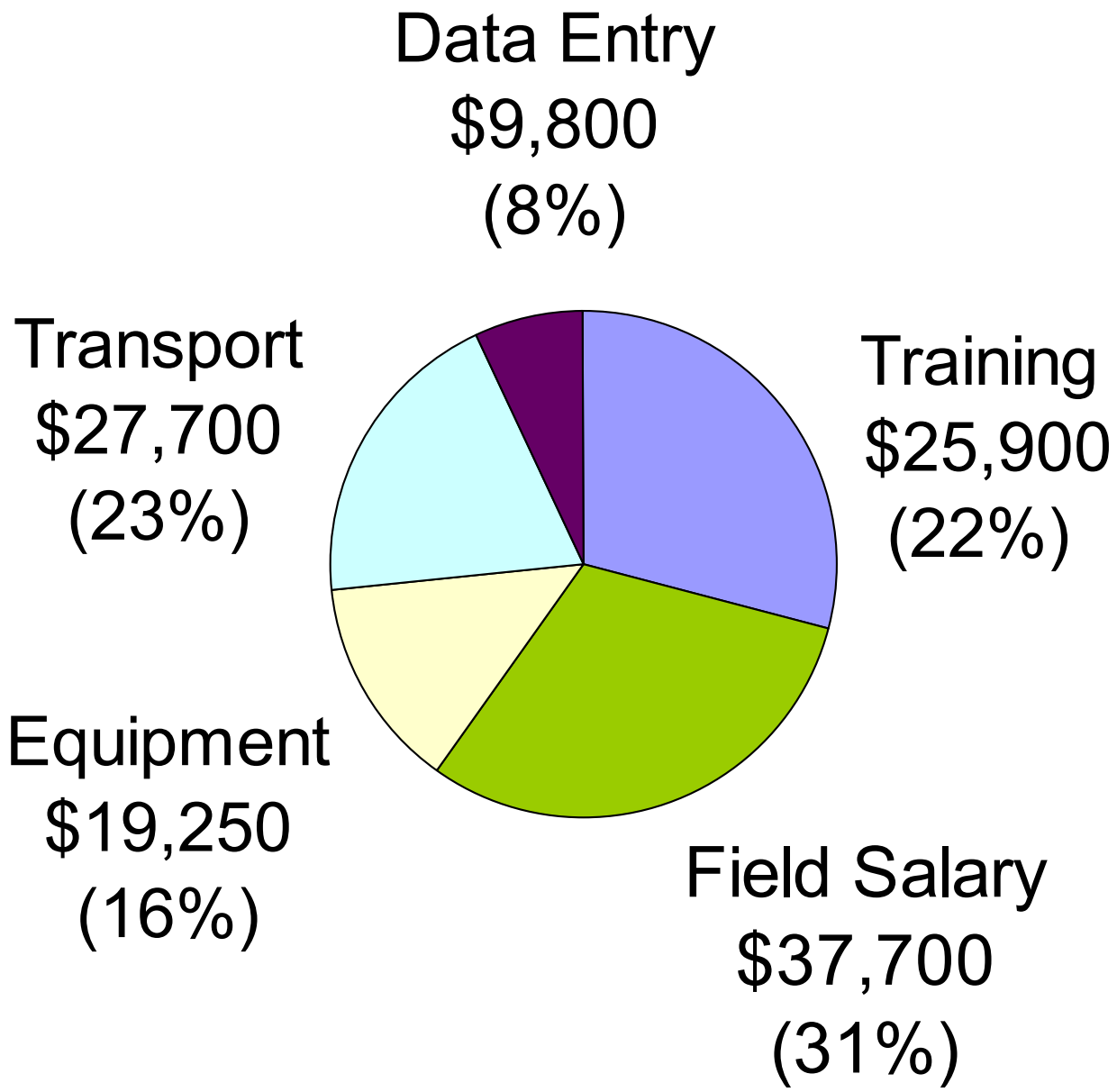
- Do not under estimate importance

- Practice with map and compass
  - -move point to point
  - -return to camp
  - -read coordinates off map
  - -establish routes or grids
  - -orienteering courses

- Practice with all types of GPS units that may be used in the field
  - -learn to set correct datum
  - -learn to reset after battery failure

- Time spent on this topic was 1 days (8 - 10 hours)

Startup Year Costs
For Inventory



Costs-Bird Inventory

- Training--3 weeks--9 people
  First Aid, CPR, equipment, distance estimation, bird id, vegetation classification, salary*

  $190/day/person, $25,650 total

- Field costs -- 29 days-- 9 people
  Transportation*, per diem, salary, equipment

  $120/VCP, $4,320/block

* item that adds most to cost

Not Included in Cost Breakdown

- Salary for 2 wildlife biologists:
  - Project planning
  - Personnel hiring
  - Data analysis
  - Report writing
  - Presentations
  - Publications
- Ecological map preparation
- Database development

What Worked

- Extensive preplanning
- Backup sampling sites
- Hiring experienced technicians
- Rehiring >50% in 2nd year
- Hiring a rover technician
- Extensive training
- Establishing one complete transect during training period
- Educating technicians on project objectives and methods
- Rangefinders
- Having person dedicated to project

What Didn't Work

- Excessively long hours, no rest days
- Personnel without previous remote field experience
- Map and compass training needs improvement

Recommendations

- Extensive preplanning and preparation *prior* to arrival of technicians
- Select backup sampling sites during the preplanning stage
- Hire experienced technicians capable of backcountry travel
- Rehire technicians when possible
- Extensive training (3 weeks)
- Educate crew on methodology
- Allow for rest days
- Dedicated person to project