ALMS report from the field

North Pacific Rainforest

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Overview

- Site locations
- Habitats encountered
- Methods by site
- Birds encountered
- Problems
- Expenses

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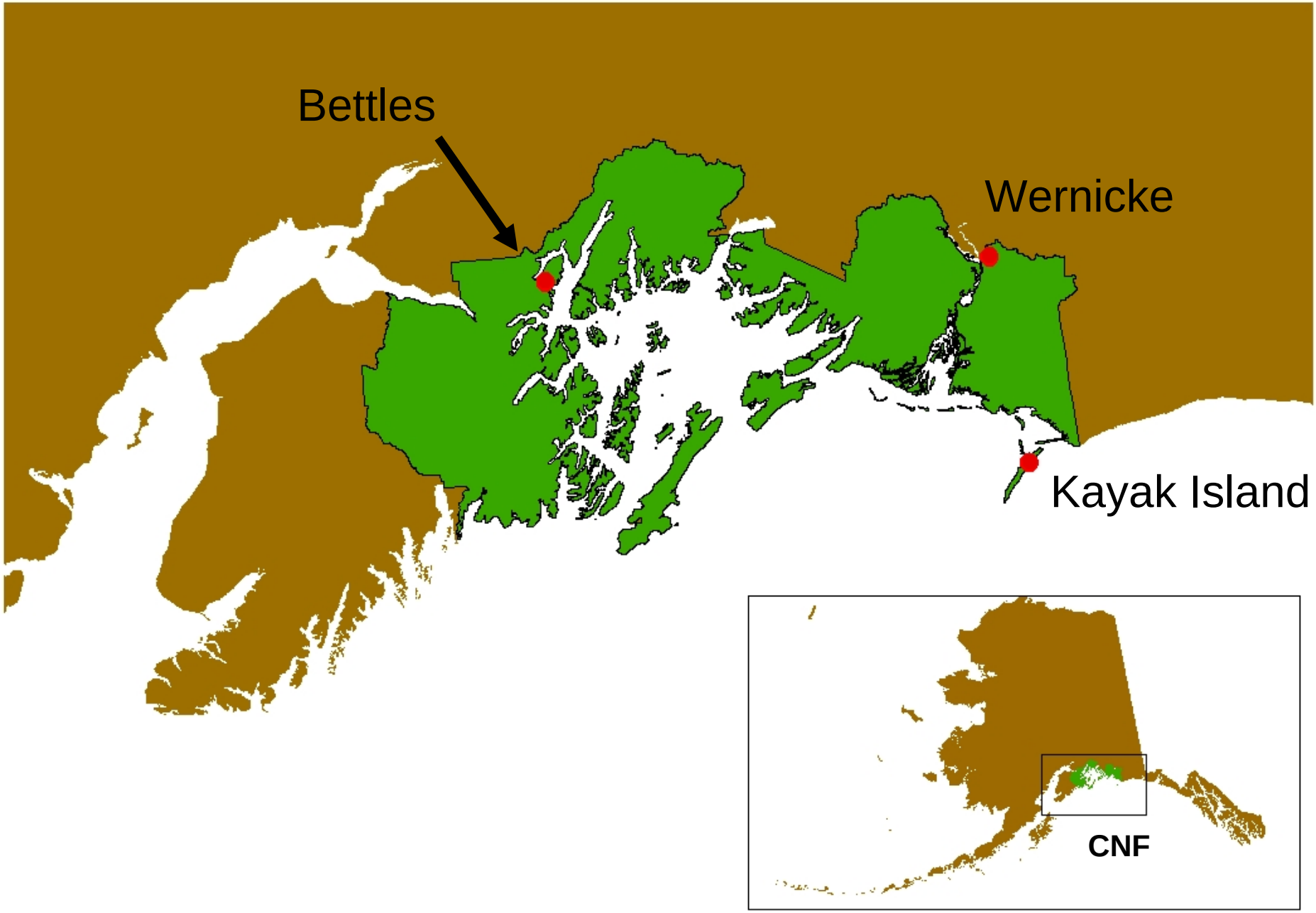
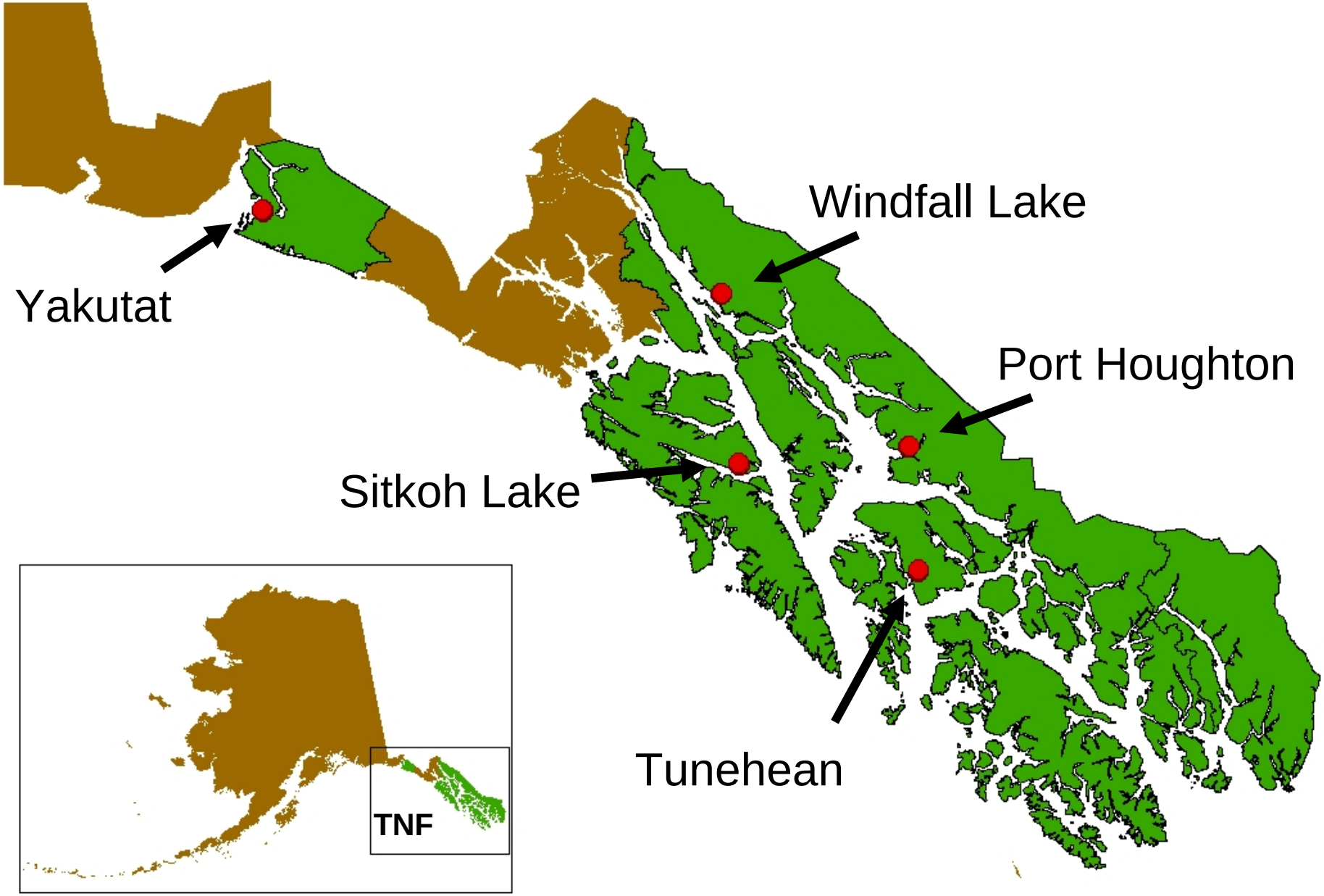
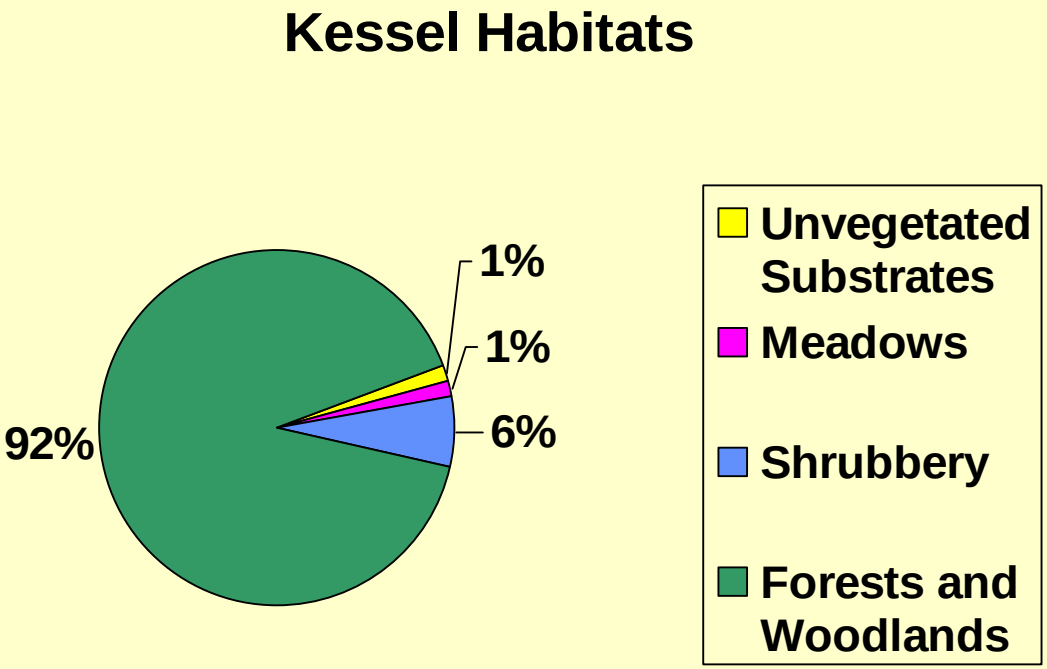
Chugach National Forest ALMS Sites, 2003



Tongass National Forest ALMS Sites, 2003



Habitats Encountered



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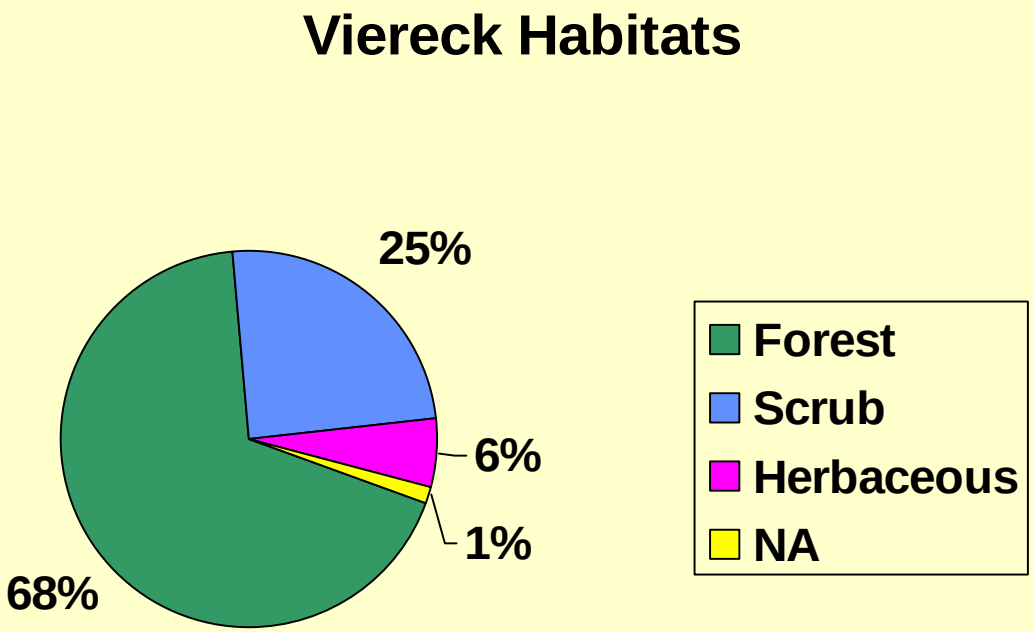
Habitats Encountered



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Field Methods

Block	Transportation	Location of Camp	Navigation
Bettles	Boat	Boat/Grid	GPS (first point); compass and rangefinder
Wernicke	Wheeled plane/Airboat	Near grid	GPS; compass and rangefinder
Kayak Island	Wheeled plane	Edge of grid	GPS; veg too thick for rangefinder
Yakutat	Alaska Airlines/Car	Town	GPS (bearings); compass and rangefinder
Windfall Lake	Car/Trail	Cabin/Grid	GPS (first point); compass and rangefinder
Port Houghton	Boat	Boat	GPS; compass and rangefinder
Sitkoh Lake	Alaska Airlines/Float plane/Car	Cabin	GPS (first point); compass and rangefinder; aerial photos
Tunehean	AMHS Ferry/Helicopter	Edge of grid	GPS (first point); compass and rangefinder; aerial photos

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Field Methods

Block	Number of Crew Members (Veg/Birds)	Number of Visits	Number of Days of Bird Surveys	Number of Points
Bettles	2/2	2	2	15
Wernicke	2/1	1	3	15
Kayak Island	2/1	1	3	16
Yakutat	4/1	1	3	17
Windfall Lake	7/2	2	3	20
Port Houghton	2/1	1	2	8
Sitkoh Lake	2/1	1	2	14
Tunehean	2/1	1	2	15

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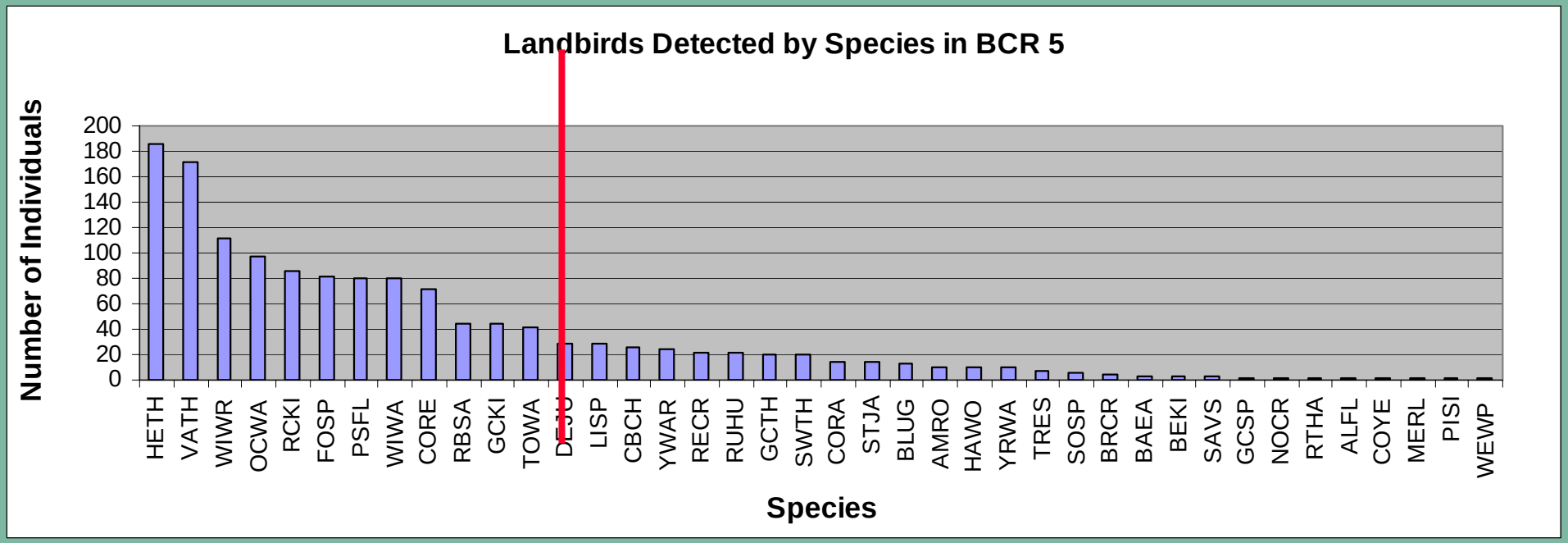

- Capable of estimating density for 12 species
- Capable of estimating density for 4 of 22 BPIF priority species (RBSA, PSFL, VATH, TOWA)
- 7 other BPIF priority species detected (RUHU, STJA, BLUG, NOCR, CBCH, GCTH, GCSP)

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Challenges: Block Setup

- Site access
  - Many sites are not accessible and must be discarded
  - Lack of accessibility sometimes impossible to determine prior to site visit

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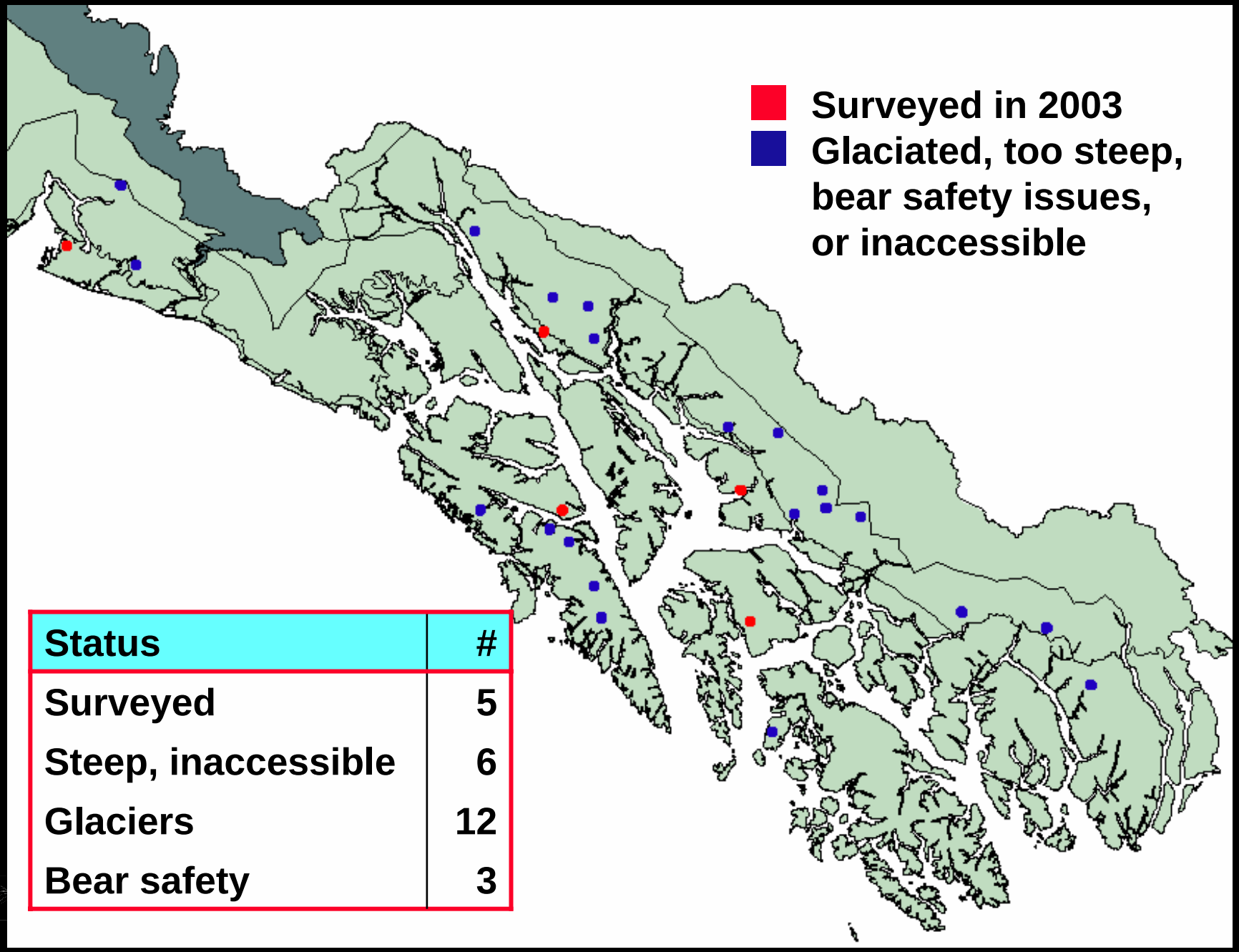

Status	#
Surveyed	5
Steep, inaccessible	6
Glaciers	12
Bear safety	3

Challenges: Block Setup

- Navigation to points within a block
  - Poor GPS coverage, inaccurate/inconsistent GPS locations, satellites obscured by dense canopy

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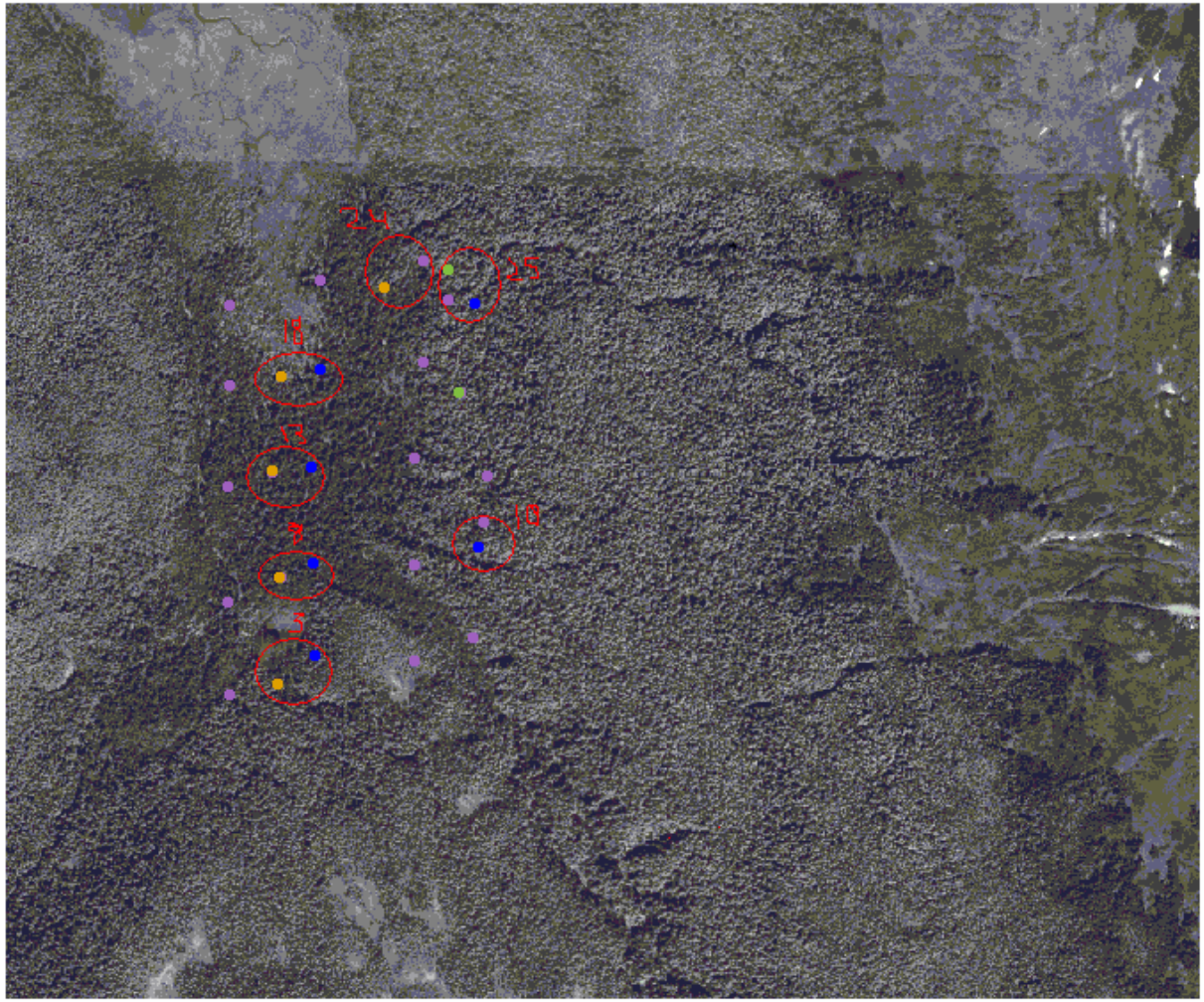
ALMS POINT COUNT 2003
WINDFALL LAKE --GRID #15489



Grid Configuration

22	23	24	25
17	18	19	20
12	13	14	15
7	8	9	10
2	3	4	5

Clusters where point locations differ more than 20 m

Cover layers used

- Windfall_corrected.shp
- Aaron_windfall.shp
- Erin_windfall.shp
- Windfall.shp

N
W E
S

- Pts 25, 20 taken by A Poe
- Pts 24, 18,13,8,24 taken by E.Cooper
- All points taken by G. Baluss

Note: These do not show for those points that were identical for both readings 18,13,08,03, 20

- Point locations based on field notes

0.5 0 0.5 1 Miles

Challenges: Block Setup

- Navigation to points within a block
  - Dense brush and steep grades make for slow going and inaccurate locations when GPS unavailable
  - Random directions for moving points difficult to apply

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Challenges: Block Setup

"Very tough going, brushy and steep with unstable slopes"

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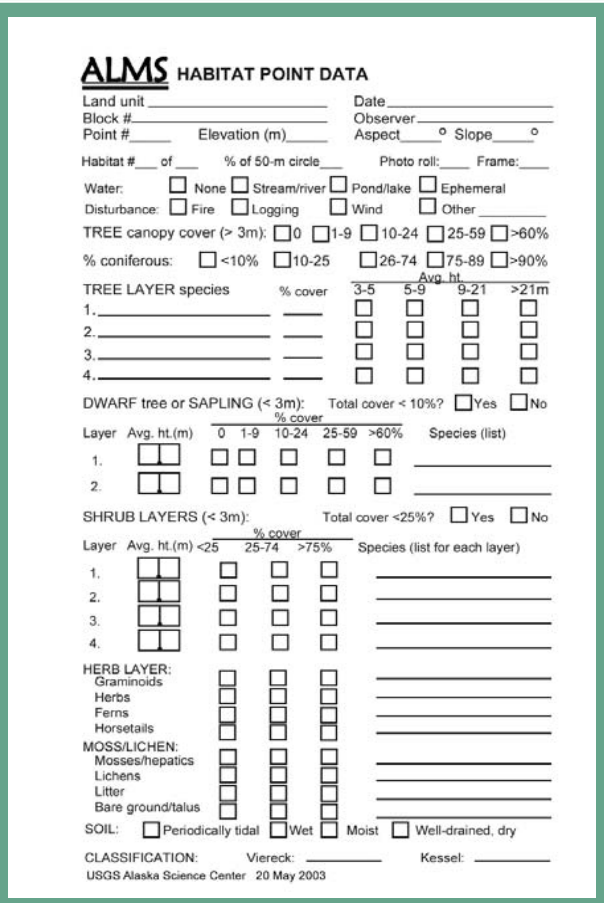
Challenges: Vegetation Data Collection

- Vegetation changed markedly between the time vegetation data were collected and when bird surveys were conducted
- Timber harvest planned in the near future will obscure marked plots
- Need to clarify relative vs. absolute cover in layer species



ALMS HABITAT POINT DATA

Land unit _____ Date _____
Block #_____ Observer _____
Point #_____ Elevation (m)_____ Aspect_____° Slope_____°

Habitat #___ of ___ % of 50-m circle___ Photo roll:____ Frame:____

Water: ☐ None ☐ Stream/river ☐ Pond/lake ☐ Ephemeral
Disturbance: ☐ Fire ☐ Logging ☐ Wind ☐ Other _____

TREE canopy cover (> 3m): ☐0 ☐1-9 ☐10-24 ☐25-59 ☐>60%

% coniferous: ☐<10% ☐10-25 ☐26-74 ☐75-89 ☐>90%

TREE LAYER species	% cover	Avg. ht. 3-5	5-9	9-21	>21m
1. _____	____	☐	☐	☐	☐
2. _____	____	☐	☐	☐	☐
3. _____	____	☐	☐	☐	☐
4. _____	____	☐	☐	☐	☐

DWARF tree or SAPLING (< 3m): Total cover < 10%? ☐Yes ☐No

Layer	Avg. ht.(m)	% cover 0	1-9	10-24	25-59	>60%	Species (list)
1.	☐☐	☐	☐	☐	☐	☐	_____
2.	☐☐	☐	☐	☐	☐	☐	_____

SHRUB LAYERS (< 3m): Total cover <25%? ☐Yes ☐No

Layer	Avg. ht.(m)	% cover <25	25-74	>75%	Species (list for each layer)
1.	☐☐	☐	☐	☐	_____
2.	☐☐	☐	☐	☐	_____
3.	☐☐	☐	☐	☐	_____
4.	☐☐	☐	☐	☐	_____

HERB LAYER:				
Graminoids	☐	☐	☐	_____
Herbs	☐	☐	☐	_____
Ferns	☐	☐	☐	_____
Horsetails	☐	☐	☐	_____
MOSS/LICHEN:				
Mosses/hepatics	☐	☐	☐	_____
Lichens	☐	☐	☐	_____
Litter	☐	☐	☐	_____
Bare ground/talus	☐	☐	☐	_____

SOIL: ☐Periodically tidal ☐Wet ☐ Moist ☐ Well-drained, dry

CLASSIFICATION: Viereck: _____ Kessel: _____

USGS Alaska Science Center 20 May 2003

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Challenges: Bird Surveys

- Poor weather
- Difficulty estimating distance to detected birds
- Difficulty putting all birds in correct time interval, especially at the beginning of the time interval at busy sites

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Challenges: Bird Surveys

Photo by William Zittrich

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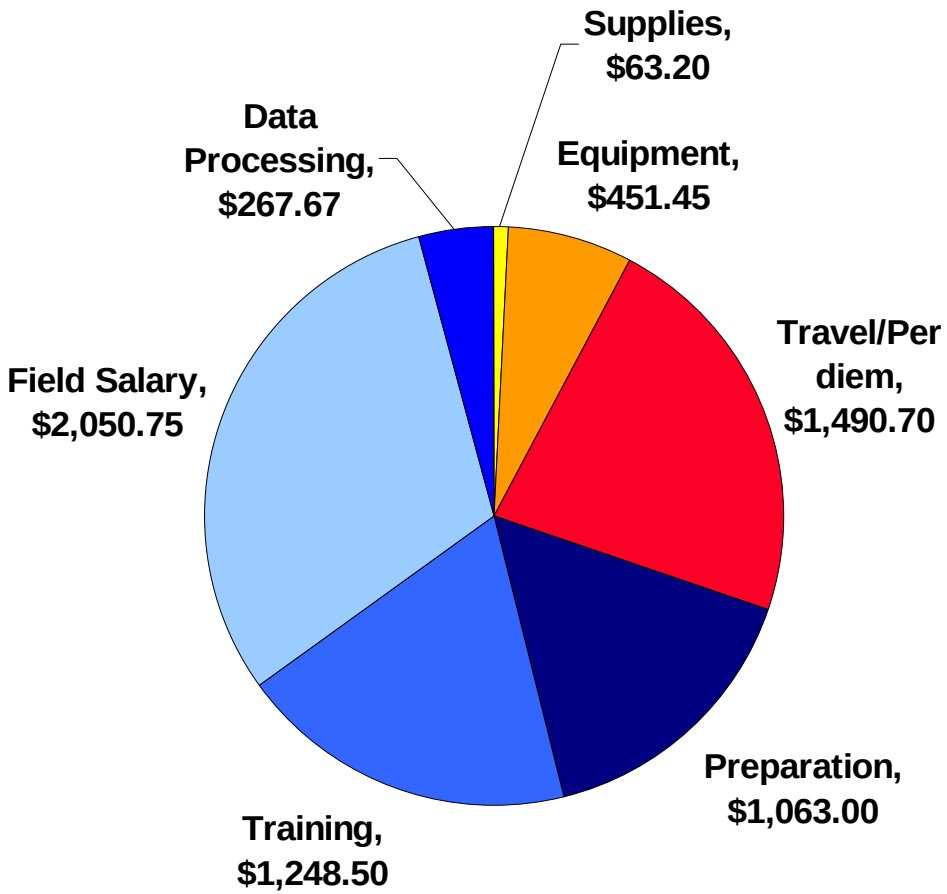
Average Expenses for ALMS Blocks in BCR 5

- $6635.27/block
- $452.41/point

- Expenses expected to decrease over time



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Comparison to ORBBS

- Expense - more expensive
- Habitats sampled – 5 of 8 sites in BCR 5 were not readily accessible to humans
- Birds sampled - similar suites of species so far
- Potential to meet monitoring needs
  - already enough data to conduct distance analysis on 12 species of birds
  - Easy to incorporate Red Squirrels as well

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Acknowledgements

- U. S. Forest Service Region 10
  - Chugach National Forest
    - Glacier Ranger District
    - Cordova Ranger District
  - Tongass National Forest
    - Juneau Ranger District
    - Yakutat Ranger District
    - Sitka Ranger District
    - Petersburg Ranger District
    - Wrangell Ranger District

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