

# Gates of the Arctic National Park and Preserve

## Riparian Bird Inventory

### Park Flight Migratory Bird Program

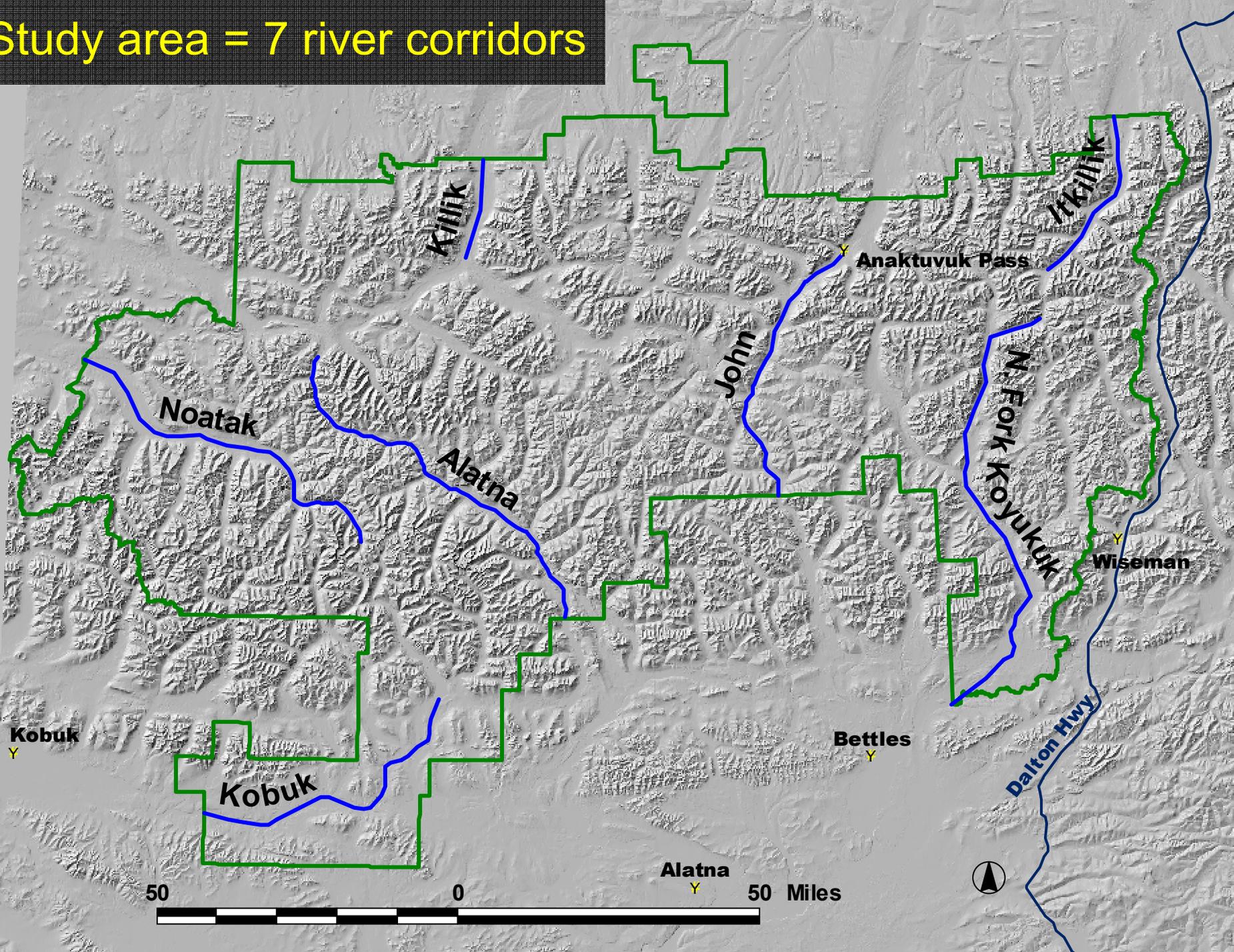


THE UNIVERSITY OF ARIZONA,  
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# Study Design Requirements

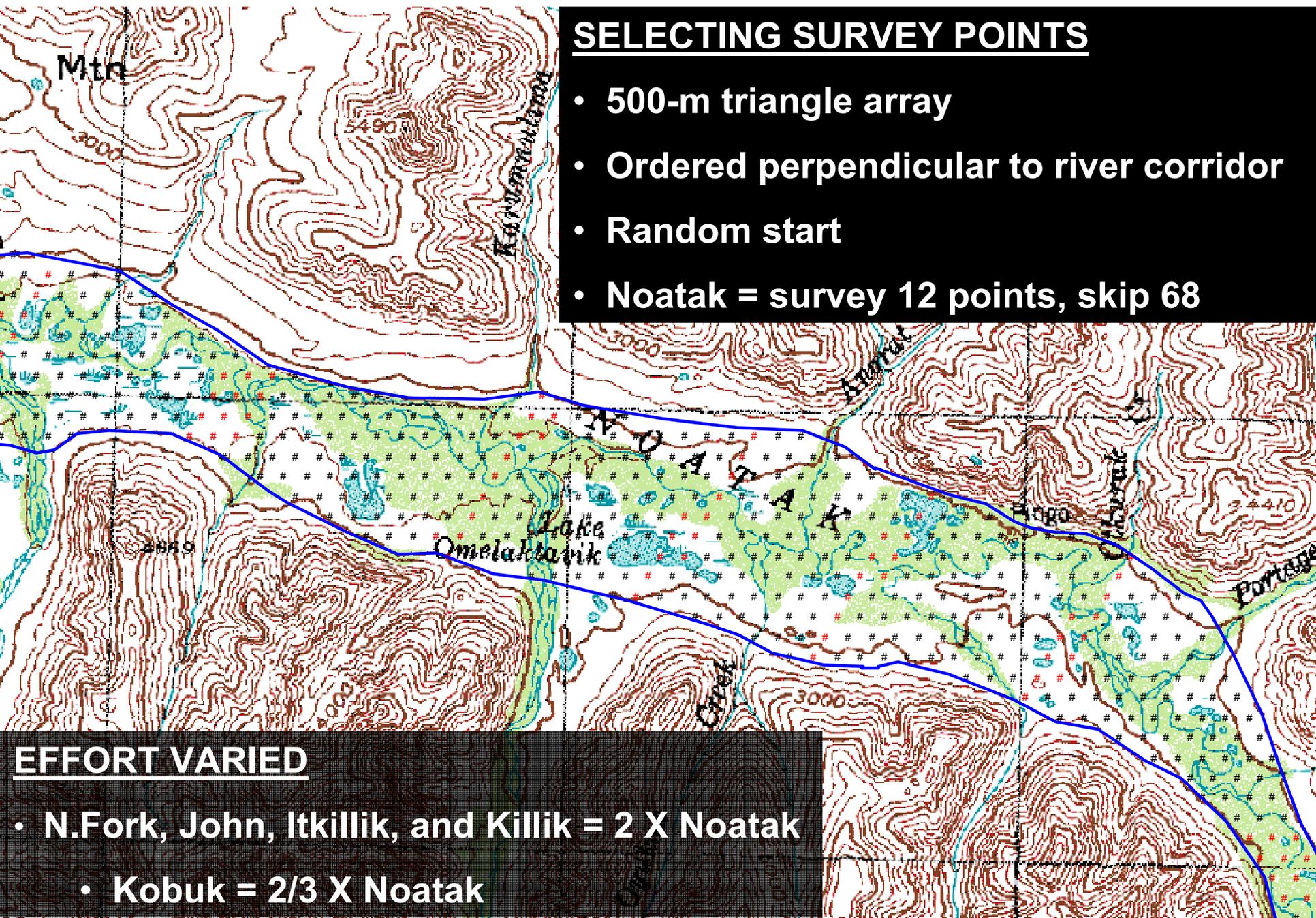
- Probabilistic sampling design
- Feasible (inexpensive)
- Wilderness friendly (no helicopter)
- Personnel efficient ( ↑ survey time, ↓ travel time)
- 2-person crews

# Study area = 7 river corridors



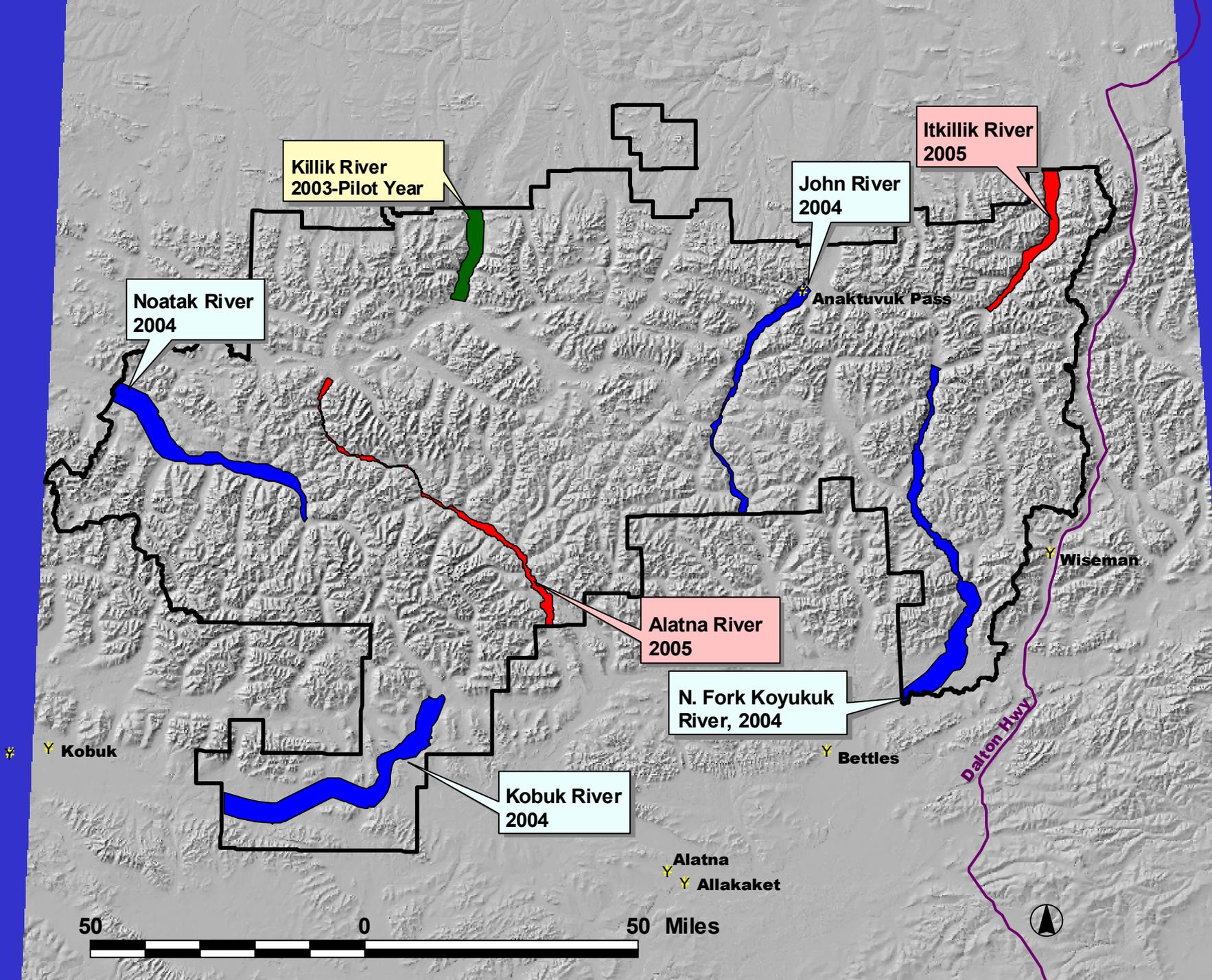
## SELECTING SURVEY POINTS

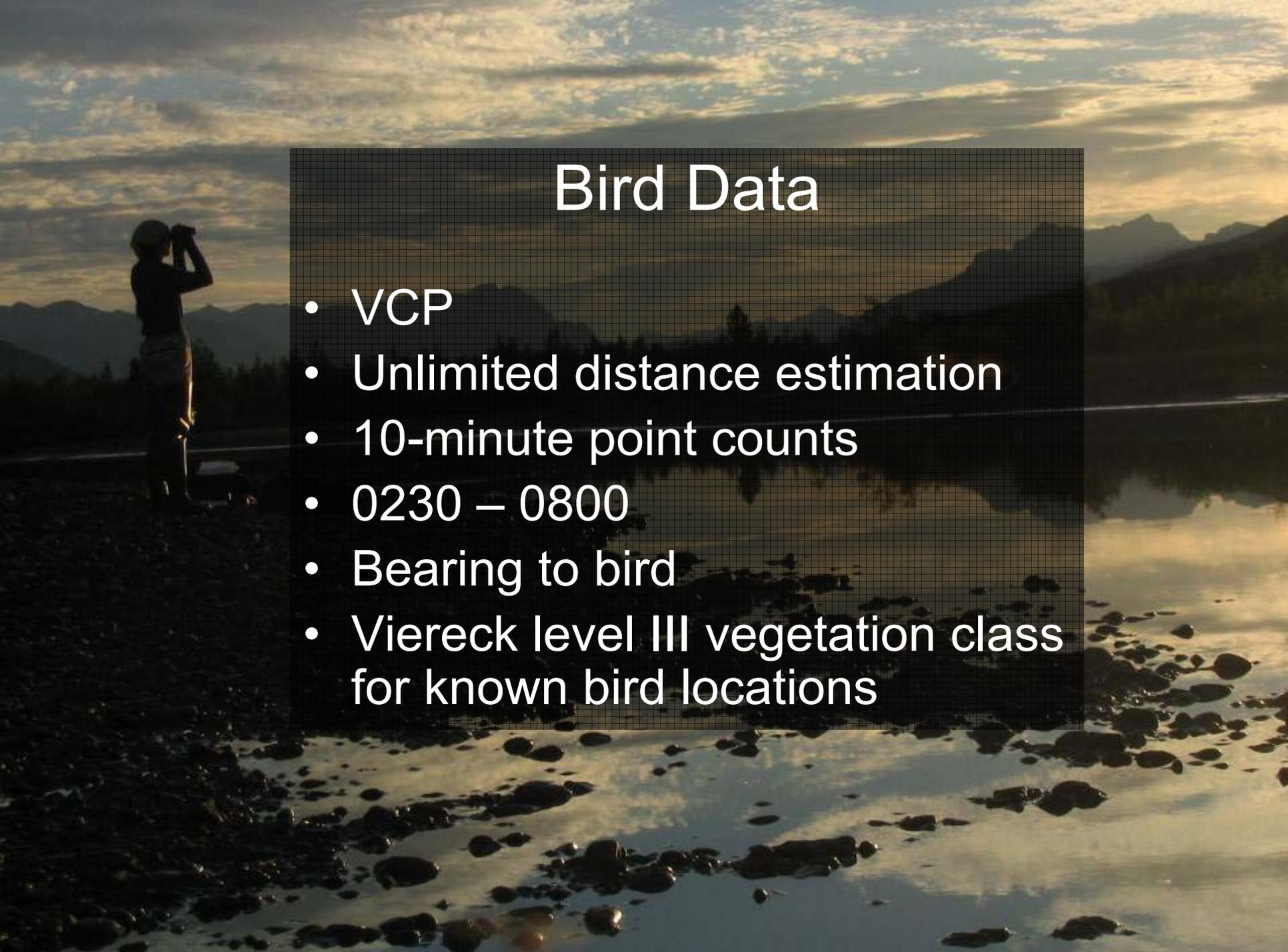
- 500-m triangle array
- Ordered perpendicular to river corridor
- Random start
- Noatak = survey 12 points, skip 68



## EFFORT VARIED

- N.Fork, John, Itkillik, and Killik = 2 X Noatak
- Kobuk = 2/3 X Noatak



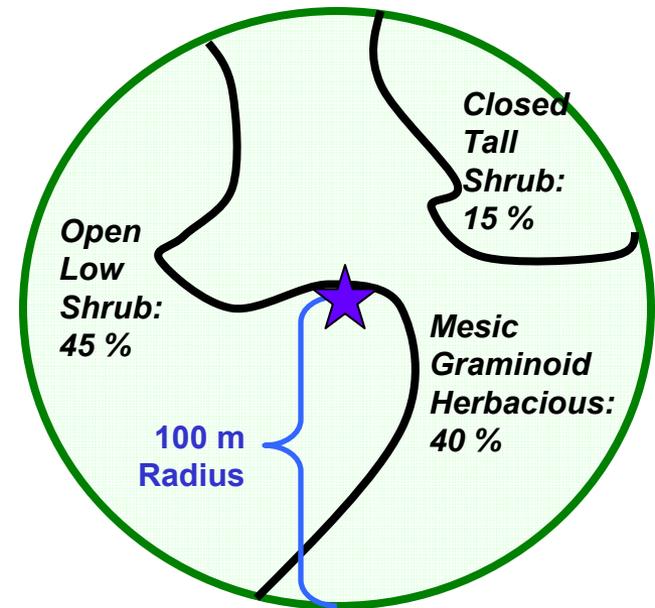


## Bird Data

- VCP
- Unlimited distance estimation
- 10-minute point counts
- 0230 – 0800
- Bearing to bird
- Viereck level III vegetation class for known bird locations

# Vegetation Data

- Conducted at same time as bird survey (QUICK)
- 100-m radius
- Divide into Viereck level III vegetation polygons
- Minimum patch size = 400 m<sup>2</sup> (same as ALMS)
- Recorded all species with > 5% cover within each class
  - Ocular estimation of % cover and height



<b>River</b>	<b>Dates in Field</b>	<b># Points</b>	<b># Species</b>
<b>Killik</b>	<b>18 – 28 June, 2003</b>	<b>64</b>	<b>42 (28)</b>
<b>John</b>	<b>7 – 24 June, 2004</b>	<b>136</b>	<b>60 (44)</b>
<b>Kobuk</b>	<b>11 – 28 June, 2004</b>	<b>104</b>	<b>63 (48)</b>
<b>N. Fork Koyukuk</b>	<b>9 – 28 June, 2004</b>	<b>161</b>	<b>54 (39)</b>
<b>Noatak</b>	<b>9 – 28 June, 2004</b>	<b>180</b>	<b>50 (39)</b>
<b>TOTAL</b>	<b>82 days</b>	<b>645</b>	<b>110 (83)</b>

# Interesting Birds

## **LOONS**

- Yellow-billed loon – Walker Lake (south side of Brooks Range)

## **SHOREBIRDS**

- Killdeer – 1 on Kobuk River
- American Golden Plover – many (41 on John and Noatak)
- Whimbrel – 1 on Noatak
- Wandering Tattler – on all rivers
- Upland Sandpiper – many (108 total; 59 on Noatak)

## **FLYCATCHERS**

- Olive-sided Flycatcher – many (30 on N. Fork; 41 total)
- Western Wood-Pewee – 2 on Kobuk
- Hammond's Flycatcher – very few (2 on Kobuk)
- Least Flycatcher – 1 on Kobuk

# Interesting Birds (Cont.)

## **CHICKADEES**

- Boreal Chickadee – only 21 detections!
- Black-capped Chickadee – none

## **THRUSHES and SHRIKES**

- Arctic Warbler – 1 on John
- Swainson's Gray-cheeked Thrush – MANY
- Northern Shrike – on all rivers but John

## **WARBLERS**

- Blackpoll Warbler – 6 on Kobuk, 1 on Noatak
- Yellow Warbler – only 17 total

# Interesting Birds (Cont.)

## **SPARROWS**

- White-crowned Sparrow – most abundant bird (956)
- Golden-crowned Sparrow – none
- Smith's Longspur – 1 on the John, 37 on Noatak

## **BLACKBIRDS**

- Rusty Blackbird – v. few, 1 – 3 on John, Kobuk, N. Fork

## **FINCHES**

- Gray-crowned Rosy Finch – 2 on Noatak

# Project Cost

- Costs
  - Flight time: 1 pick-up and drop-off per river
  - Personnel:  $\frac{1}{2}$  = volunteers or staff paid from other budget,  $\frac{1}{2}$  = paid
  - Travel
  - Gear: very little \$, most already acquired
- 2003 (1 river) - \$3,000 (no personnel costs)
- 2004 (4 rivers) - \$35,000 (personnel costs included)
- 2005 (2 rivers) - ~ \$7,000 (no personnel costs)
- Total = \$45,000