



**Avian Influenza  
Results from  
Harvested Birds:  
(2006-2007)**

**Avian Influenza  
Principal Investigators Mtg  
Feb. 6-7, 2008**

# Harvest AI Monitoring



- **Spring Subsistence Harvest**
  - YKHC
  - KAW
  - FWS:MBM (2006 Only)
- **Fall Harvest (Sport Hunters: “Subsistence”)**
  - ADFG
  - FWS:NWR
  - YKHC, KAW, NSB (2006 Only)
- **Target: 300 birds per village**

# Alaska AI Harvest Results

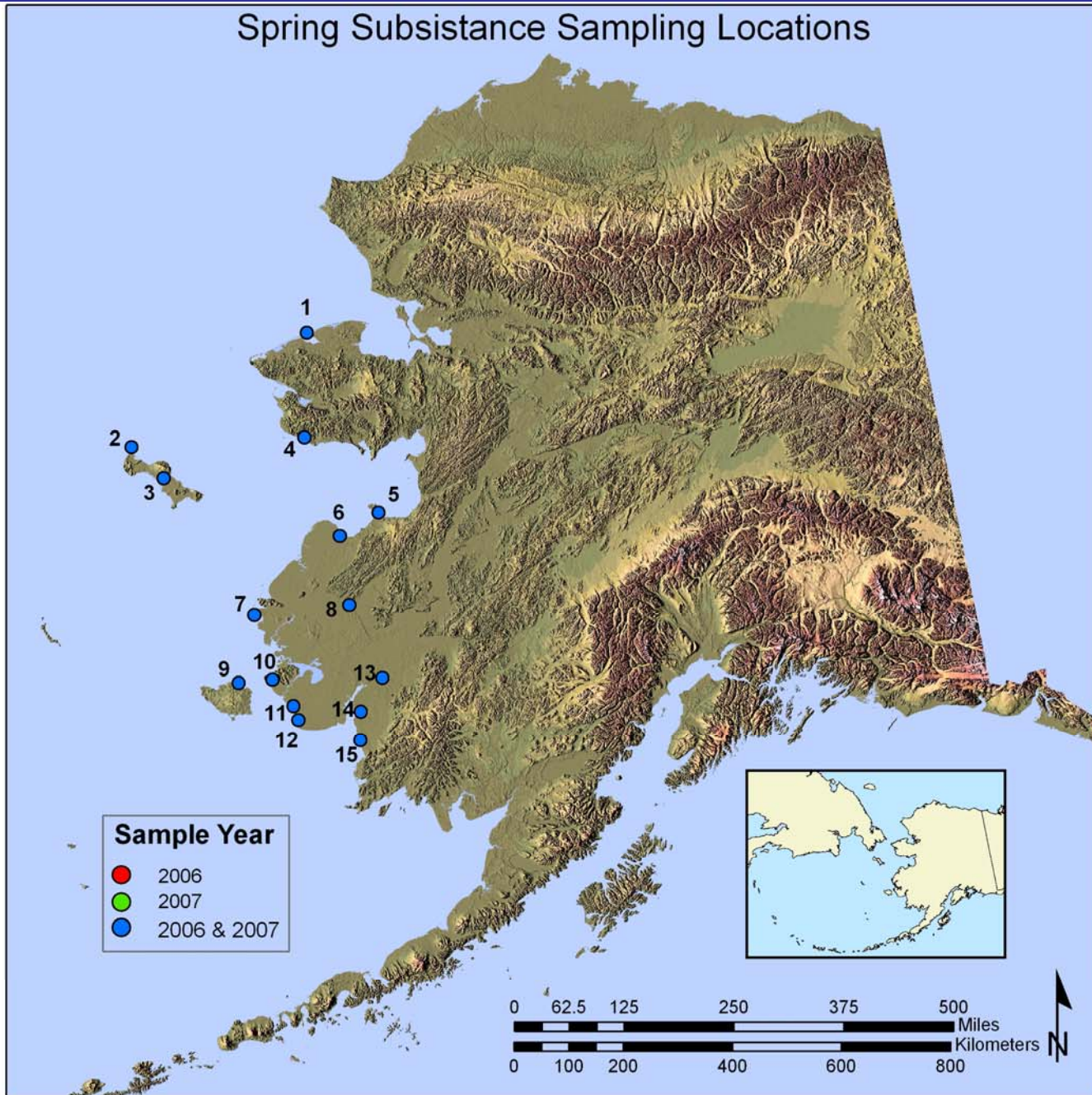
|                 | <u>2006</u>         | <u>2007</u>        |
|-----------------|---------------------|--------------------|
| Samples to NWHC | 16,836              | 8,671              |
| Live            | 11,624 (134)        | 5,735 (46)         |
| Harvest*        | 5,212 (158)<br>3.0% | 2,936 (22)<br>0.7% |

( # of AI Positive)

\* Includes subsistence, fall harvest (2006) and sport hunter



# Spring Subsistence Sampling Locations



# Spring Subsistence Harvest: Target Species

| <u>Target Species</u>    | <u>Total<br/>Sampled*</u> | <u>2006</u>     | <u>2007</u>    |
|--------------------------|---------------------------|-----------------|----------------|
| Cackling Goose           | 370                       | 178             | 192            |
| Arctic Tern              | 2                         | 1               | 1              |
| Bar Tailed Godwit        | 13                        | 10              | 3              |
| <b>Black Brant</b>       | <b>696 (7)</b>            | <b>310 (7)</b>  | <b>386</b>     |
| Common Eider             | 58                        | 42              | 16             |
| Dunlin                   | 25                        | 23              | 2              |
| Emperor Goose            | 280                       | 144             | 136            |
| Glaucous Gull            | 22                        | 18              | 4              |
| <b>King Eider</b>        | <b>740 (6)</b>            | <b>638 (6)</b>  | <b>102</b>     |
| Sandhill Cranes          | 174                       | 120             | 54             |
| <b>Lesser Snow Geese</b> | <b>665 (14)</b>           | <b>437 (13)</b> | <b>228 (1)</b> |

\* (# AI +)

# Spring Subsistence Harvest: Target Species

| <u>Target Species</u>   | <u>Total Sampled*</u> | <u>2006</u>    | <u>2007</u> |
|-------------------------|-----------------------|----------------|-------------|
| Long Billed Dowitcher   | 34                    | 32             | 2           |
| Long Tailed Duck        | 57                    | 45             | 12          |
| <b>Northern Pintail</b> | <b>211</b>            | <b>180</b>     | <b>31</b>   |
| Pacific Golden Plover   | 6                     | 6              | 0           |
| Pectoral Sandpiper      | 82                    | 53             | 29          |
| Red Knot                | 7                     | 6              | 1           |
| Rock Sandpiper          | 12                    | 12             | 0           |
| Ruddy Turnstone         | 4                     | 4              | 0           |
| Sharp Tailed Sandpiper  | 6                     | 6              | 0           |
| Spectacled Eider        | 5                     | 3              | 2           |
| <b>Tundra Swan</b>      | <b>275 (6)</b>        | <b>222 (6)</b> | <b>53</b>   |

\* (# AI +)

# Spring Subsistence Results by Village

YKHC  
 KAW/  
 MBM

| <u>Village</u>      | <u># Sample<br/>2006</u> | <u># Sample<br/>2007</u> |
|---------------------|--------------------------|--------------------------|
| Chefornak           | 338 (3)                  | 269 (1)                  |
| Eek                 | 304 (2)                  | 198 (0)                  |
| Hooper Bay          | 300 (8)                  | 350 (1)                  |
| Kipnuk              | 347 (14)                 | 299 (2)                  |
| Kotlik              | 358 (20)                 | 348 (1)                  |
| Kwethluk            | 239 (2)                  | 83 (0)                   |
| Mekoryuk            | 57 (2)                   | 7 (0)                    |
| Pilot Station       | 384 (29)                 | 129 (1)                  |
| Toksook Bay         | 291 (4)                  | 349 (0)                  |
| Quinhagak           | 268 (2)                  | 89 (0)                   |
| Stebbins            | 340 (7)                  | 28 (0)                   |
| Shishmaref          | 232 (5)                  | 106 (0)                  |
| Nome                | 254 (1)                  | 87 (0)                   |
| St. Lawrence Island | 958 (19)                 | 174 (2)                  |
| <b>Total</b>        | <b>4,670 (118)</b>       | <b>2,416 (8)</b>         |

# YKHC Subsistence Hunter Samples (2006)



| <u>Target Species</u>       | <u># Samples</u> | <u># AI +</u> |
|-----------------------------|------------------|---------------|
| BARG: Bar-tailed Godwit     | 35               | 0             |
| BLBR: Black Brant           | 146              | 6             |
| COEI: Common Eider          | 23               | 0             |
| DUNL: Dunlin                | 9                | 0             |
| EMGO: Emperor Goose         | 142              | 11            |
| GLGU: Glaucous Gull         | 13               | 0             |
| <b>KIEI: King Eider</b>     | <b>563</b>       | <b>5</b>      |
| LBDO: Long-billed Dowitcher | 9                | 0             |
| LSGO: Lesser Snow Goose     | 140              | 9             |
| LTDU: Long-tailed Duck      | 13               | 1             |
| NOPI: Northern Pintail      | 102              | 2             |
| PESA: Pectoral Sandpiper    | 29               | 0             |
| REKN: Red Knot              | 2                | 0             |
| SACR: Sandhill Crane        | 103              | 0             |
| <b>TUSW: Tundra Swan</b>    | <b>215</b>       | <b>6</b>      |
| <b>Subtotal</b>             | <b>1544</b>      | <b>40</b>     |
| <b>Non-target Species</b>   | <b>1342</b>      | <b>46</b>     |
| <b>Grand Total*</b>         | <b>2,886</b>     | <b>86</b>     |

\*Includes 54 fall harvested birds



# YKHC Subsistence Hunter Samples (2007)



| <u>Target Species</u>          | <u># Samples</u> | <u># AI +</u> |
|--------------------------------|------------------|---------------|
| BARG: Bar-tailed Godwit        | 3                | 0             |
| <b>BLBR: Black Brant</b>       | <b>252</b>       | <b>0</b>      |
| COEI: Common Eider             | 8                | 0             |
| DUNL: Dunlin                   | 2                | 0             |
| EMGO: Emperor Goose            | 128              | 4             |
| GLGU: Glaucous Gull            | 4                | 0             |
| KIEI: King Eider               | 102              | 0             |
| LBDO: Long-billed Dowitcher    | 2                | 0             |
| <b>LSGO: Lesser Snow Goose</b> | <b>225</b>       | <b>1</b>      |
| LTDU: Long-tailed Duck         | 12               | 1             |
| NOPI: Northern Pintail         | 15               | 0             |
| PESA: Pectoral Sandpiper       | 29               | 0             |
| REKN: Red Knot                 | 1                | 0             |
| SACR: Sandhill Crane           | 46               | 0             |
| TUSW: Tundra Swan              | 52               | 0             |
| <b>Subtotal</b>                | <b>881</b>       | <b>6</b>      |
| <b>Non-target Species</b>      | <b>1240</b>      | <b>0</b>      |
| <b>Grand Total</b>             | <b>2,121</b>     | <b>6</b>      |

# KAW Subsistence Hunter Samples (2006)



| <u>Target Species</u>         | <u># Samples</u> | <u># AI +</u> |
|-------------------------------|------------------|---------------|
| BTGO: Bar-tailed Godwit       | 4                | 0             |
| BLBR: Black Brant             | 150              | 1             |
| COEI: Common Eider            | 10               | 0             |
| EMGO: Emperor Goose           | 2                | 0             |
| NOPI: Northern Pintail        | 102              | 3             |
| SACR: Sandhill Crane          | 26               | 0             |
| <b>SNGO: Snow Goose</b>       | <b>285</b>       | <b>4</b>      |
| TUSW: Tundra Swan             | 6                | 0             |
| <b>Subtotal</b>               | <b>585</b>       | <b>0</b>      |
| Non-target or<br>Unidentified | 299              | 8             |
| <b>Grand Total*</b>           | <b>884</b>       | <b>8</b>      |

\* Includes 54 fall harvest birds

# KAW Subsistence Hunter Samples (2007) \*



| <u>Target Species</u>      | <u># Samples</u> | <u># AI +</u> |
|----------------------------|------------------|---------------|
| BLBR: Black Brant          | 134              | 0             |
| COEI: Common Eider         | 8                | 0             |
| EMGO: Emperor Goose        | 8                | 0             |
| NOPI: Northern Pintail     | 16               | 0             |
| SACR: Sandhill Crane       | 8                | 0             |
| SNGO: Snow Goose           | 3                | 0             |
| SPEI: Spectacled Eider     | 2                | 0             |
| TUSW: Tundra Swan          | 1                | 0             |
| <b>Subtotal</b>            | <b>180</b>       | <b>0</b>      |
| Non-target or Unidentified | 215              | 2             |
| <b>Grand Total</b>         | <b>395</b>       | <b>2</b>      |

\* Includes Gambell and Savoonga

# MBM Subsistence Hunter Samples: St. L. Island (2006)

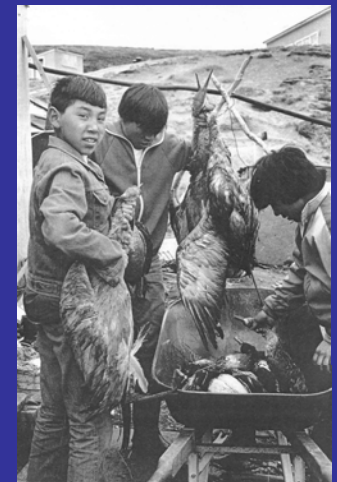


| <u>Target Species</u>             | <u># Samples</u> | <u># AI +</u> |
|-----------------------------------|------------------|---------------|
| BLBR: Black Brant                 | 14               | 0             |
| COEI: Common Eider                | 9                | 0             |
| DUNL: Dunlin                      | 13               | 0             |
| GLGU: Glaucous Gull               | 83               | 5             |
| KIEI: King Eider                  | 78               | 1             |
| LBDO: Long-billed Dow             | 6                | 0             |
| LTDU: Long-tailed Duck            | 7                | 0             |
| NOPI: Northern Pintail            | 21               | 1             |
| PESA: Pectoral Sandpiper          | 4                | 0             |
| SACR: Sandhill Crane              | 2                | 0             |
| SNGO: Snow Goose                  | 90               | 0             |
| SPEI: Spectacled Eider            | 6                | 0             |
| TUSW: Tundra Swan                 | 1                | 0             |
| <b>Subtotal</b>                   | <b>334</b>       | <b>7</b>      |
| <b>Non-target or Unidentified</b> | <b>395</b>       | <b>5</b>      |
| <b>Grand Total*</b>               | <b>958</b>       | <b>19</b>     |

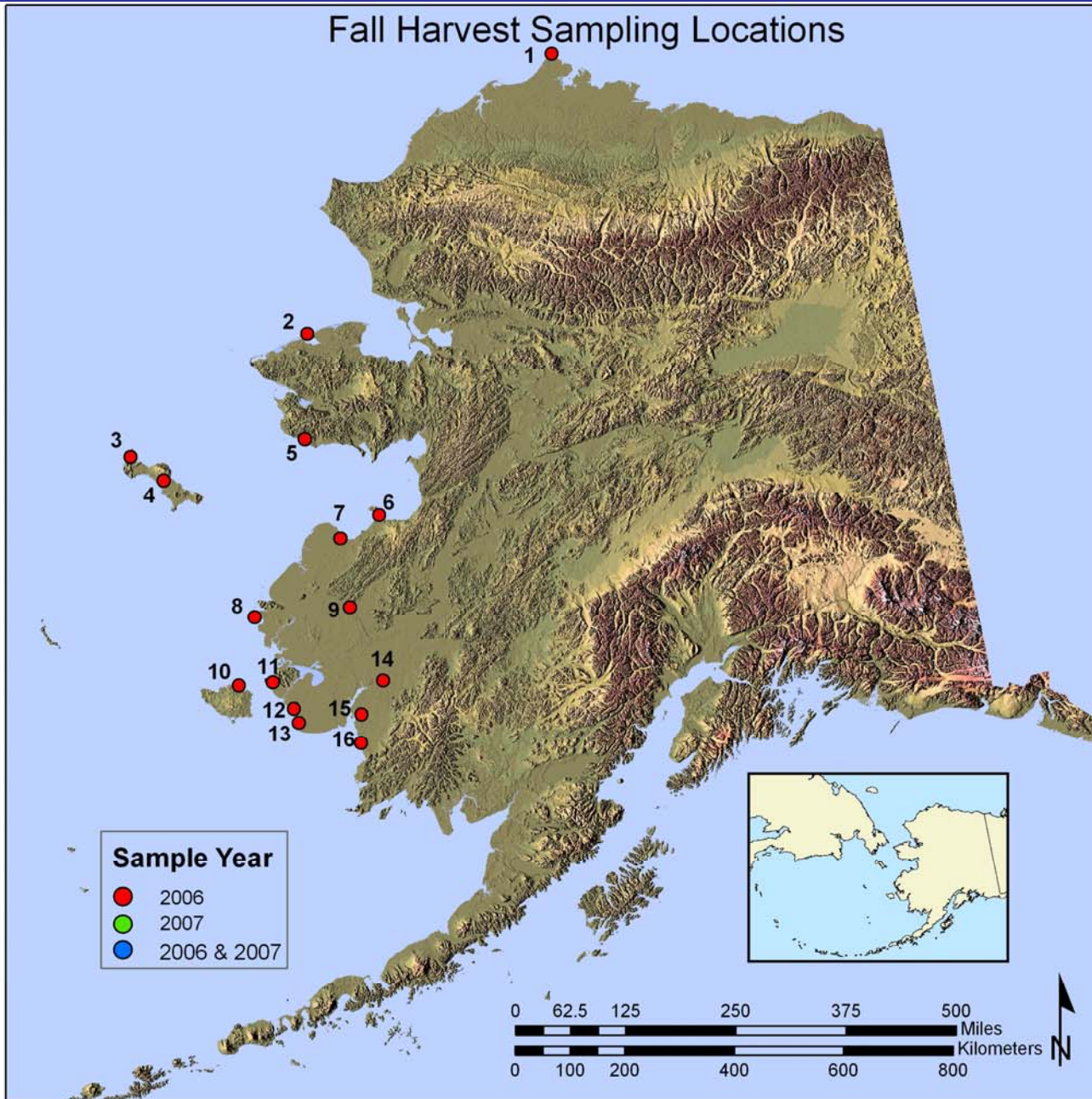
# Spring Subsistence Harvest: Non-target Over 200

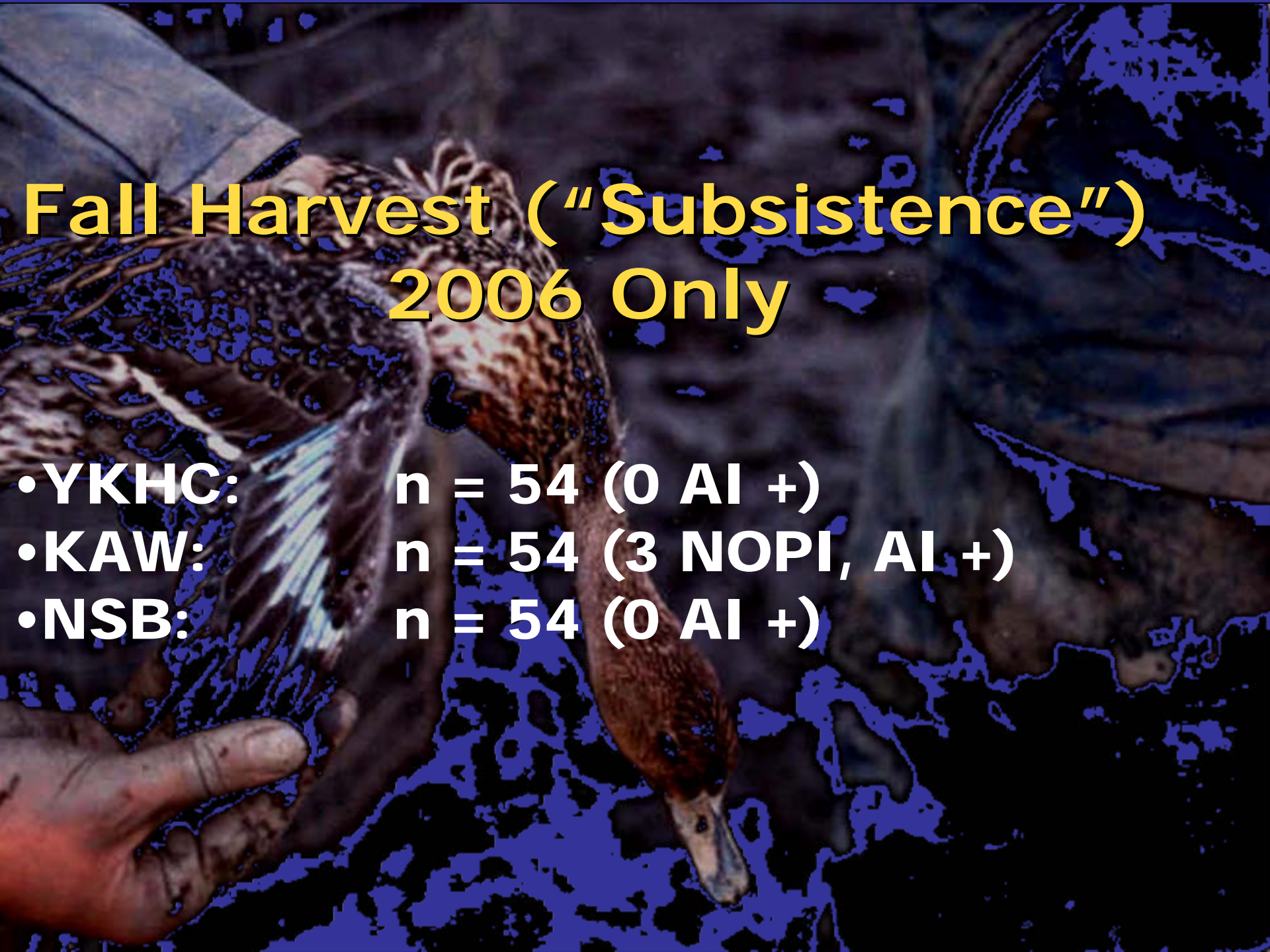
| <u>Target Species</u> | <u>Total Sampled*</u> | <u>2006</u> | <u>2007</u> |
|-----------------------|-----------------------|-------------|-------------|
| Canada Goose          | 477 (9)               | 241 (9)     | 236         |
| Crested Auklet        | 304 (0)               | 207         | 97          |
| Greater White-Fronted | 1466 (38)             | 830 (38)    | 636         |
| Thick-billed Murre    | 235 (7)               | 235 (7)     | 0           |

\* (#AI Positive)



# Fall Harvest Sampling Locations





# Fall Harvest ("Subsistence") 2006 Only

- YKHC: n = 54 (0 AI +)
- KAW: n = 54 (3 NOPI, AI +)
- NSB: n = 54 (0 AI +)

# Sport Hunter Sampling Locations

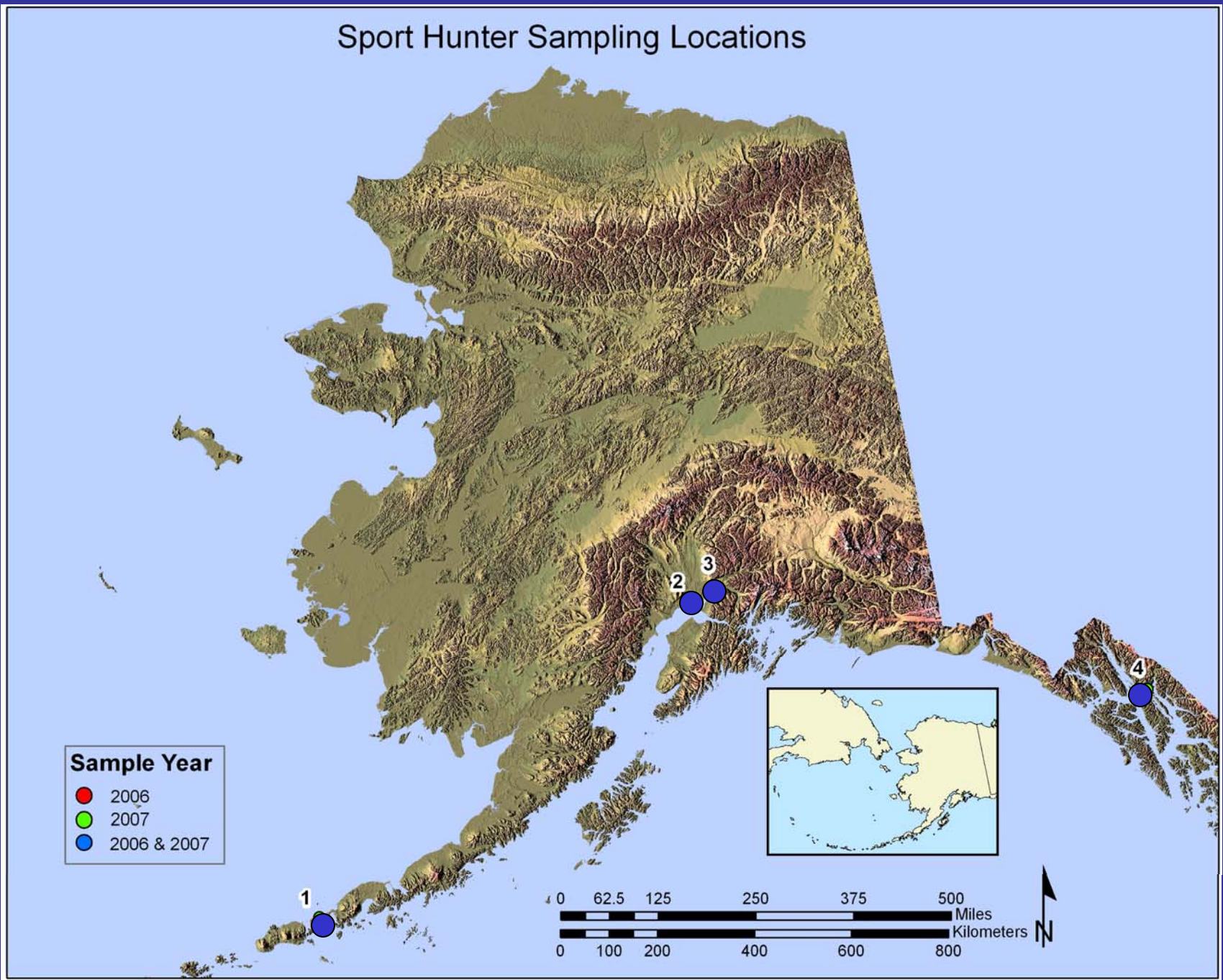
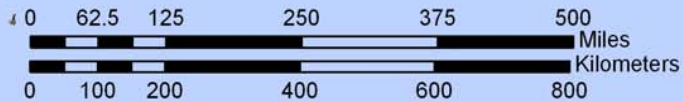


1

2

3

4







# Fall Harvest: Sport Hunter Target Species

| <u>Target Species</u> | <u>Total<br/>Sampled*</u> | <u>2006</u> | <u>2007</u> |
|-----------------------|---------------------------|-------------|-------------|
| Northern Pintail      | 317 (23)                  | 215         | 102         |
| Sandhill Crane        | 5                         | 2           | 3           |

\*(# AI +)



# Fall Harvest: Sport Hunter Non-Target Species

| <u>Non-Target Species</u> | <u>Total Sampled*</u> | <u>Prevalence</u> | <u>2006</u> | <u>2007</u> |
|---------------------------|-----------------------|-------------------|-------------|-------------|
| Mallard                   | 186 (19)              | 22%               | 121         | 65          |
| American Green Wing Teal  | 37 (3)                | 8%                | 12          | 35          |
| Northern Shoveler         | 21 (3)                | 14%               | 4           | 17          |

\*(# AI +)



# Conclusions/Questions

- Spring subsistence harvest is important for sampling early migrants, however sample size varies among species and geographic area

Question: Should we increase early live sampling?

Question: Should we target certain subsistence spp?

Question: How can we motivate participation to attain sample size?

Question: Should we expand geographic coverage, Ex: North Slope

# Conclusions/Questions

- Fall, non-sport hunting sampling effort was not successful across a wide geographic range (2006)

Question: Should we permanently dismiss this sampling scheme?



# Conclusions/Questions

- Fall, sport hunting sampling identified potential non-target species that may be more common reservoirs of AI viruses

Question: Should we emphasize other species, such as mallards or teal?

Question: Should/Can we add other sport hunter locations?

