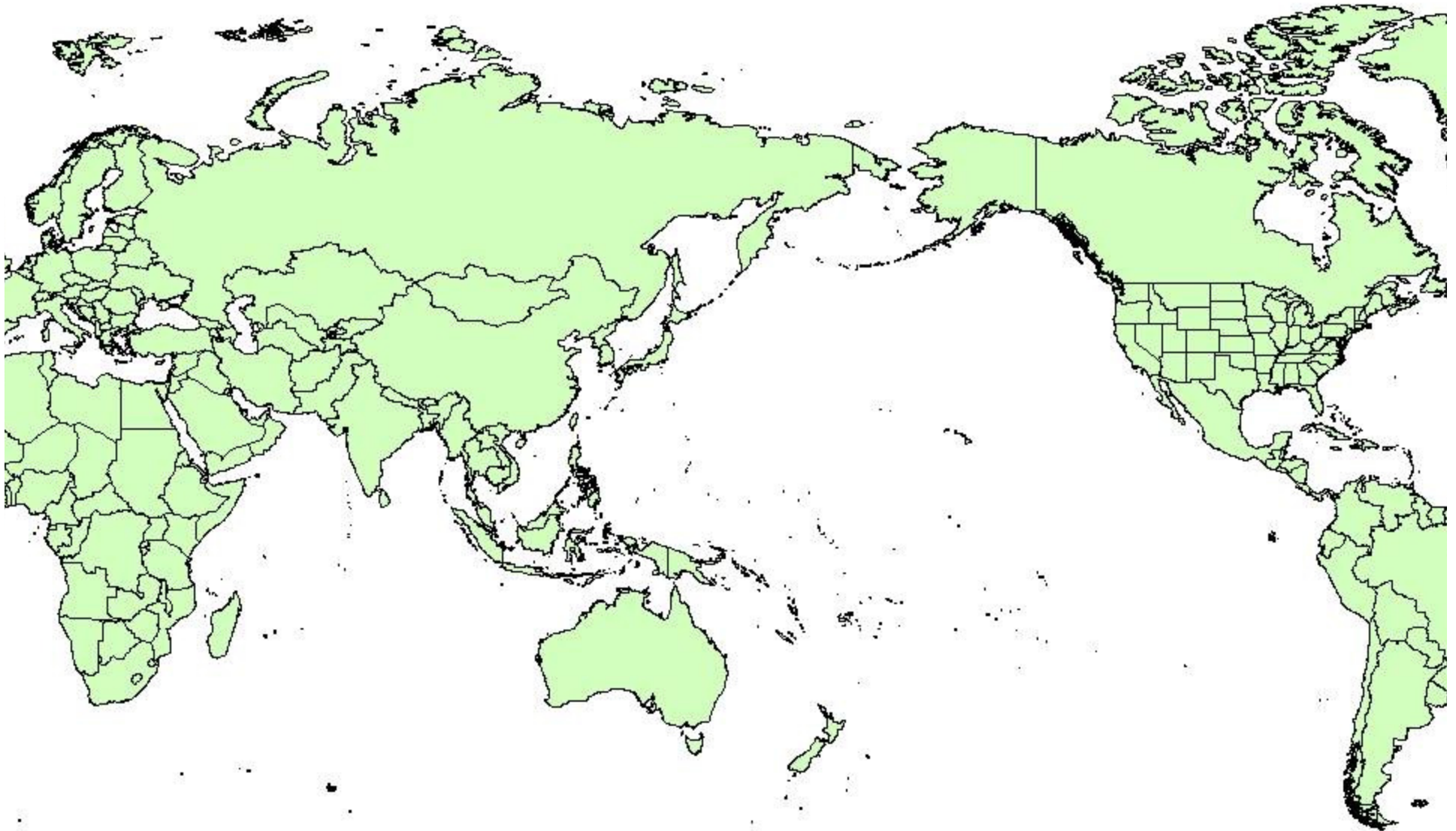


DRAFT

- Process used to identify priority species for AI sampling in 2006





**Watchable
Wildlife**

Wings Over Alaska

Alaska Bird Checklist
for (your name)

No. of species _____

Submit a **copy** of this
checklist with your
certificate application.
Checklists will not be
returned.

SWANS and GEESE

- c Bean Goose
- Greater White-fronted Goose
- a Lesser White-fronted Goose
- Emperor Goose
- Snow Goose
- c Ross's Goose
- Brant
- Cackling Goose
- Canada Goose
- Trumpeter Swan
- Tundra Swan
- r Whooper Swan

DUCKS

- c Wood Duck
- Gadwall
- c Falcatod Duck
- Eurasian Wigeon
- American Wigeon
- a American Black Duck
- Mallard
- c Spot-billed Duck

- Blue-winged Teal
- c Cinnamon Teal
- Northern Shoveler
- Northern Pintail
- c Garganey
- c Baikal Teal
- Green-winged Teal
- Canvasback
- Redhead
- c Common Pochard
- Ring-necked Duck
- r Tufted Duck
- Greater Scaup
- Lesser Scaup
- Steller's Eider
- Spectacled Eider
- King Eider
- Common Eider
- Harlequin Duck
- Surf Scoter
- White-winged Scoter
- Black Scoter
- Long-tailed Duck
- Bufflehead
- Common Goldeneye
- Barrow's Goldeneye
- r Smew
- Hooded Merganser
- Common Merganser
- Red-breasted Merganser
- c Ruddy Duck

GROUSE, PTARMIGAN

- Ruffed Grouse
- Spruce Grouse
- Willow Ptarmigan
- Rock Ptarmigan
- White-tailed Ptarmigan

- Blue Grouse
- Sharp-tailed Grouse

LOONS

- Red-throated Loon
- r Arctic Loon
- Pacific Loon
- Common Loon
- Yellow-billed Loon

GREBES

- r Pied-billed Grebe
- Horned Grebe
- Red-necked Grebe
- a Eared Grebe
- Western Grebe
- [Clark's Grebe]

ALBATROSSSES

- a Shy Albatross
- Laysan Albatross
- Black-footed Albatross
- Short-tailed Albatross

PETRELS, SHEARWATERS

- Northern Fulmar
- Mottled Petrel
- a Cook's Petrel
- Pink-footed Shearwater
- [Flesh-footed Shearwater]
- a Greater Shearwater
- r Buller's Shearwater
- Sooty Shearwater
- Short-tailed Shearwater
- [Manx Shearwater]
- [Little Shearwater]
- Fork-tailed Storm-Petrel
- Leach's Storm-Petrel

PELICANS, CORMORANTS

- a American White Pelican
- a Brown Pelican
- r Brandt's Cormorant
- Double-Crested Cormorant
- Red-faced Cormorant
- Pelagic Cormorant

FRIGATEBIRDS

- a Magnificent Frigatebird

**BITTERNS, HERONS,
EGRETS**

- r American Bittern
- a Yellow Bittern
- Great Blue Heron
- [Gray Heron]
- c Great Egret
- a Chinese Egret
- a Little Egret
- [Snowy Egret]

- a Chinese Pond-Heron
- c Cattle Egret
- a Green Heron
- Black-crowned Night-Heron

**VULTURES, HAWKS,
FALCONS**

- c Turkey Vulture
- Osprey
- Bald Eagle
- c White-tailed Eagle
- c Steller's Sea-Eagle
- Northern Harrier
- [Gray Frog-Hawk]
- Sharp-shinned Hawk
- [Cooper's Hawk]
- Northern Goshawk
- r Swainson's Hawk
- Red-tailed Hawk
- [Common Buzzard]
- Rough-legged Hawk
- Golden Eagle
- c Eurasian Kestrel
- American Kestrel
- Merlin
- c Eurasian Hobby
- Gyrfalcon
- Peregrine Falcon

RAILS, COOTS

- [Yellow Rail]
- c Virginia Rail
- [Baillon's Crake]
- r Sora
- a Eurasian Coot
- r American Coot

CRANES

- Sandhill Crane
- a Common Crane

PLOVERS

- Black-bellied Plover
- a European Golden-Plover
- American Golden-Plover
- Pacific Golden-Plover
- r Lesser Sand-Plover
- a Snowy Plover
- r Common Ringed Plover

- Semipalmated Plover
- c Little Ringed Plover
- Killdeer
- r Eurasian Dotterel

OYSTERCATCHER

- Black Oystercatcher

STILTS, AVOCETS

- a Black-winged Stilt
- a American Avocet

SANDPIPERS

- r Common Greenshank
- Greater Yellowlegs
- Lesser Yellowlegs
- a Marsh Sandpiper
- c Spotted Redshank
- Wood Sandpiper
- c Green Sandpiper
- Solitary Sandpiper
- [Willet]
- Wandering Tattler
- Gray-tailed Tattler
- r Common Sandpiper
- Spotted Sandpiper
- r Terek Sandpiper
- Upland Sandpiper
- a Little Curlew
- ! Eskimo Curlew
- Whimbrel
- Bristle-thighed Curlew
- c Far Eastern Curlew
- [Long-billed Curlew]
- c Black-tailed Godwit
- Hudsonian Godwit
- Bar-tailed Godwit
- Marbled Godwit
- Ruddy Turnstone
- Black Turnstone
- Surfbird
- c Great Knot
- Red Knot
- Sanderling
- Semipalmated Sandpiper
- Western Sandpiper
- Red-necked Stint
- c Little Stint

- c Temminck's Stint
- r Long-toed Stint
- Least Sandpiper
- r White-rumped Sandpiper
- Baird's Sandpiper
- Pectoral Sandpiper
- Sharp-tailed Sandpiper
- a Purple Sandpiper
- Rock Sandpiper
- Dunlin
- c Curlew Sandpiper
- Stilt Sandpiper
- c Spoonbill Sandpiper
- c Broad-billed Sandpiper
- Buff-breasted Sandpiper
- r Ruff
- Short-billed Dowitcher
- Long-billed Dowitcher
- a Jack Snipe
- Wilson's Snipe
- Common Snipe
- a Pin-tailed Snipe
- c Wilson's Phalarope
- Red-necked Phalarope
- Red Phalarope

JAEGERS, GULLS, TERNS

- a Oriental Pratincole
- c South Polar Skua
- Pomarine Jaeger
- Parasitic Jaeger
- Long-tailed Jaeger
- [Laughing Gull]
- c Franklin's Gull
- c Little Gull
- r Black-headed Gull
- Bonaparte's Gull
- c Heerman's Gull
- c Black-tailed Gull
- Mew Gull
- r Ring-billed Gull
- California Gull
- Herring Gull
- Iceland Gull (incl. Thayer's)
- c Lesser Black-backed Gull
- Slaty-backed Gull

- c Western Gull
- Glaucous-winged Gull
- Glaucous Gull
- a Great Black-backed Gull
- Sabine's Gull
- Black-legged Kittiwake
- Red-legged Kittiwake
- Ross' Gull
- Ivory Gull
- r Caspian Tern
- r Common Tern
- Arctic Tern
- Aleutian Tern
- a Sooty Tern
- c White-winged Tern
- c Black Tern

AUKS, PUFFINS, MURRES

- r Dovekie
- Common Murre
- Thick-billed Murre
- Black Guillemot
- Pigeon Guillemot
- a Long-billed Murrelet
- Marbled Murrelet
- Kittlitz's Murrelet
- Ancient Murrelet
- Cassin's Auklet
- Parakeet Auklet
- Least Auklet
- Whiskered Auklet
- Crested Auklet
- Rhinoceros Auklet
- Horned Puffin
- Tufted Puffin

DOVES, CUCKOOS

- r Band-tailed Pigeon
- c Oriental Turtle-Dove
- a White-winged Dove
- r Mourning Dove
- c Common Cuckoo
- c Oriental Cuckoo
- c Yellow-billed Cuckoo

OWLS

- a Oriental Scops-Owl
- r Western Screech-Owl

Local checklists that include seasonal abundance for a particular area will be most useful as field checklists.

_ Great Horned Owl
 _ Snowy Owl
 _ Northern Hawk Owl
 r Northern Pygmy-Owl
 r Barred Owl
 _ Great Gray Owl
 a Long-eared Owl
 _ Short-eared Owl
 _ Boreal Owl
 _ Northern Saw-whet Owl
NIGHT JARS
 a Lesser Nighthawk
 r Common Nighthawk
 a Whip-poor-will
 a Gray Nightjar
SWIFTS, HUMMINGBIRDS
 _ Black Swift
 a Chimney Swift
 _ Vaux's Swift
 a White-throated Needletail
 a Common Swift
 a Fork-tailed Swift
 a Ruby-throated Hummingbird
 c Anna's Hummingbird
 c Costa's Hummingbird
 _ [Calliope Hummingbird]
 _ Rufous Hummingbird
HOOPES, KINGFISHERS
 a Eurasian Hoopoe
 _ Belted Kingfisher
WOODPECKERS
 a Eurasian Wryneck
 c Yellow-bellied Sapsucker
 _ Red-breasted Sapsucker
 c Great Spotted Woodpecker
 _ Downy Woodpecker
 _ Hairy Woodpecker
 _ Am. Three-toed Woodpecker
 _ Black-backed Woodpecker
 _ Northern Flicker
 _ [Pileated Woodpecker]
TYRANT FLYCATCHERS
 _ Olive-sided Flycatcher
 _ Western Wood-Pewee
 r Yellow-bellied Flycatcher

_ Alder Flycatcher
 c Willow Flycatcher
 c Least Flycatcher
 _ Hammond's Flycatcher
 c Dusky Flycatcher
 _ Pacific-slope Flycatcher
 a Black Phoebe
 c Eastern Phoebe
 _ Say's Phoebe
 _ [Ash-throated Flycatcher]
 a Great Crested Flycatcher
 c Tropical Kingbird
 c Western Kingbird
 c Eastern Kingbird
 c Scissor-tailed Flycatcher
SHRIKES
 c Brown Shrike
 _ Northern Shrike
VIREOS
 c Cassin's Vireo
 _ Warbling Vireo
 c Philadelphia Vireo
 _ Red-eyed Vireo
JAYS, CROWS
 _ Gray Jay
 _ Steller's Jay
 c Clark's Nutcracker
 _ Black-billed Magpie
 r American Crow
 _ Northwestern Crow
 _ Common Raven
LARKS
 r Sky Lark
 _ Horned Lark
SWALLOWS
 c Purple Martin
 _ Tree Swallow
 _ Violet-green Swallow
 _ Northern Rough-winged Swallow
 r Swallow
 _ Bank Swallow
 _ Cliff Swallow
 _ Barn Swallow
 c Common House-Martin

CHICKADEES

_ Black-capped Chickadee
 c Mountain Chickadee
 _ Chestnut-backed Chickadee
 _ Boreal Chickadee
 r Gray-headed Chickadee
 _ [Great Tit]

NUTHATCHES, CREEPERS, WRENS, DIPPERS

_ Red-breasted Nuthatch
 _ Brown Creeper
 _ Winter Wren
 _ American Dipper

OLD WORLD WARBLERS, THRUSHES, and ALLIES

_ Golden-crowned Kinglet
 _ Ruby-crowned Kinglet
 c Middendorff's Grasshopper-Warbler
 a Lanceolated Warbler
 a Willow Warbler
 a Wood Warbler
 c Dusky Warbler

a Yellow-browed Warbler
 _ Arctic Warbler
 a Lesser Whitethroat
 a Narcissus Flycatcher
 _ [Mugimaki Flycatcher]

c Red-breasted Flycatcher
 c Dark-sided Flycatcher
 c Gray-streaked Flycatcher
 a Asian Brown Flycatcher
 a Spotted Flycatcher
 a [Rufous-tailed Robin]

r Siberian Rubythroat
 _ Bluethroat
 a Siberian Blue Robin
 c Red-flanked Bluetail
 _ Northern Wheatear
 c Stonechat
 r Mountain Bluebird
 _ Townsend's Solitaire
 c Veery

_ Gray-cheeked Thrush
 _ Swainson's Thrush
 _ Hermit Thrush

r Eyebrowed Thrush
 c Dusky Thrush
 c Fieldfare
 _ American Robin
 _ Varied Thrush

MIMIDS, STARLINGS

a Gray Catbird
 c Northern Mockingbird
 a Brown Thrasher
 _ European Starling

ACCENTORS, WAGTAILS, PIPITS

c Siberian Accentor
 _ Yellow Wagtail
 c Gray Wagtail
 r White Wagtail
 c Tree Pipit
 c Olive-backed Pipit
 c Pechora Pipit
 c Red-throated Pipit
 _ American Pipit

WAXWINGS

_ Bohemian Waxwing
 _ Cedar Waxwing

WOOD-WARBLERS

r Tennessee Warbler
 _ Orange-crowned Warbler
 a Nashville Warbler
 a [Northern Parula]
 _ Yellow Warbler
 a Chestnut-sided Warbler
 r Magnolia Warbler
 c Cape May Warbler

a Black-throated Blue Warbler
 _ Yellow-rumped Warbler
 _ [Black-throated Gray Warbler]
 _ Black-throated Green Warbler
 a Townsend's Warbler
 _ [Hermit Warbler]
 a Prairie Warbler
 c Palm Warbler
 _ [Bay-breasted Warbler]
 _ Blackpoll Warbler
 c Black-and-white Warbler

_ American Redstart
 c Ovenbird
 _ Northern Waterthrush
 _ [Kentucky Warbler]
 a Mourning Warbler

c MacGillivray's Warbler
 _ Common Yellowthroat
 _ Wilson's Warbler
 a Canada Warbler

TANAGERS

a Scarlet Tanager
 _ Western Tanager

SPARROWS and ALLIES

c Spotted Towhee
 _ American Tree Sparrow
 _ Chipping Sparrow
 c Clay-colored Sparrow
 _ Brewer's Sparrow
 a Lark Sparrow
 _ Savannah Sparrow
 _ Fox Sparrow
 _ Song Sparrow
 _ Lincoln's Sparrow
 c Swamp Sparrow

r White-throated Sparrow
 c Harris' Sparrow
 _ White-crowned Sparrow
 _ Golden-crowned Sparrow
 _ Dark-eyed Junco
 _ Lapland Longspur
 _ Smith's Longspur
 _ [Chestnut-collared Longspur]

a Pine Bunting
 c Little Bunting
 r Rustic Bunting
 a Yellow-throated Bunting
 c Yellow-breasted Bunting

a Gray Bunting
 c Pallas's Bunting
 c Reed Bunting
 _ Snow Bunting
 _ McKay's Bunting

CARDINAL ALLIES

c Rose-breasted Grosbeak
 c Black-headed Grosbeak

a Blue Grosbeak
 a Lazuli Bunting
 c Indigo Bunting
 a Dickcissel

BLACKBIRDS

c Bobolink
 _ Red-winged Blackbird
 c Western Meadowlark
 c Yellow-headed Blackbird
 _ Rusty Blackbird
 c Brewer's Blackbird
 c Common Grackle
 r Brown-headed Cowbird
 a Orchard Oriole
 _ [Bullock's Oriole]

FINCHES

_ Brambling
 _ Gray-crowned Rosy Finch
 _ Pine Grosbeak
 c Common Rosefinch
 c Purple Finch
 c Cassin's Finch
 c House Finch
 _ Red Crossbill
 _ White-winged Crossbill
 _ Common Redpoll
 _ Hoary Redpoll
 a Eurasian Siskin
 _ Pine Siskin
 a American Goldfinch
 c Oriental Greenfinch
 c Eurasian Bullfinch
 c Evening Grosbeak
 c Hawfinch

OLD WORLD SPARROWS

c House Sparrow

a – accidental

c – casual

r – rare

! – last documented in Alaska in 1886

[] – unsubstantiated, Alaska photo needed

RARE BIRD ALERTS:
Report birds listed for Alaska as (a) accidental, (c) casual, or [unsubstantiated] as soon as possible to experienced local birders or 465-5157 (leave details and contact information).

Report locally accidental or casual species to contacts listed on local checklists.

accidental "an exceptional occurrence that might not be repeated again for decades; usually fewer than five records." (West)

casual "less than annually, but there tends to be a pattern over time at the right time of year in appropriate habitat." (West)

The Wings Over Alaska program checklist is updated from *Checklist of Alaska Birds*, Gibson, Heint, and Tobish, University of Alaska Museum, 2005 (as of January 1, 2005).

Wings Over Alaska is sponsored by:



Prioritization

- The question is how to reduce this list of about 500 down to something slightly more manageable?
- Who out there has it that will bring it here?
- We are applying opinions in attempt to calculate the relative odds that a given species will be the culprit.
- We are gambling here and we all know how often gambling pays off

Status in Alaska

- Resident
- Migrant
 - Breeder
 - Visitant

Frequency

- Abundant
- Common
- Fairly common
- Uncommon
- Rare
- Casual
- Accidental

Primary carriers

- We are tasked with testing for H5N1 in species carrying the virus to Alaska in 2006.
- At this point we are not considering spread of the virus among species if/when it becomes present.

Asymptomatic Carriers

- We are testing for carrier birds with no outward signs of the virus.
 - Previous outbreaks have been identified from large die-offs
 - Other aspects of the AI monitoring program are focused on sampling for, and from, die-off events

Unknowns

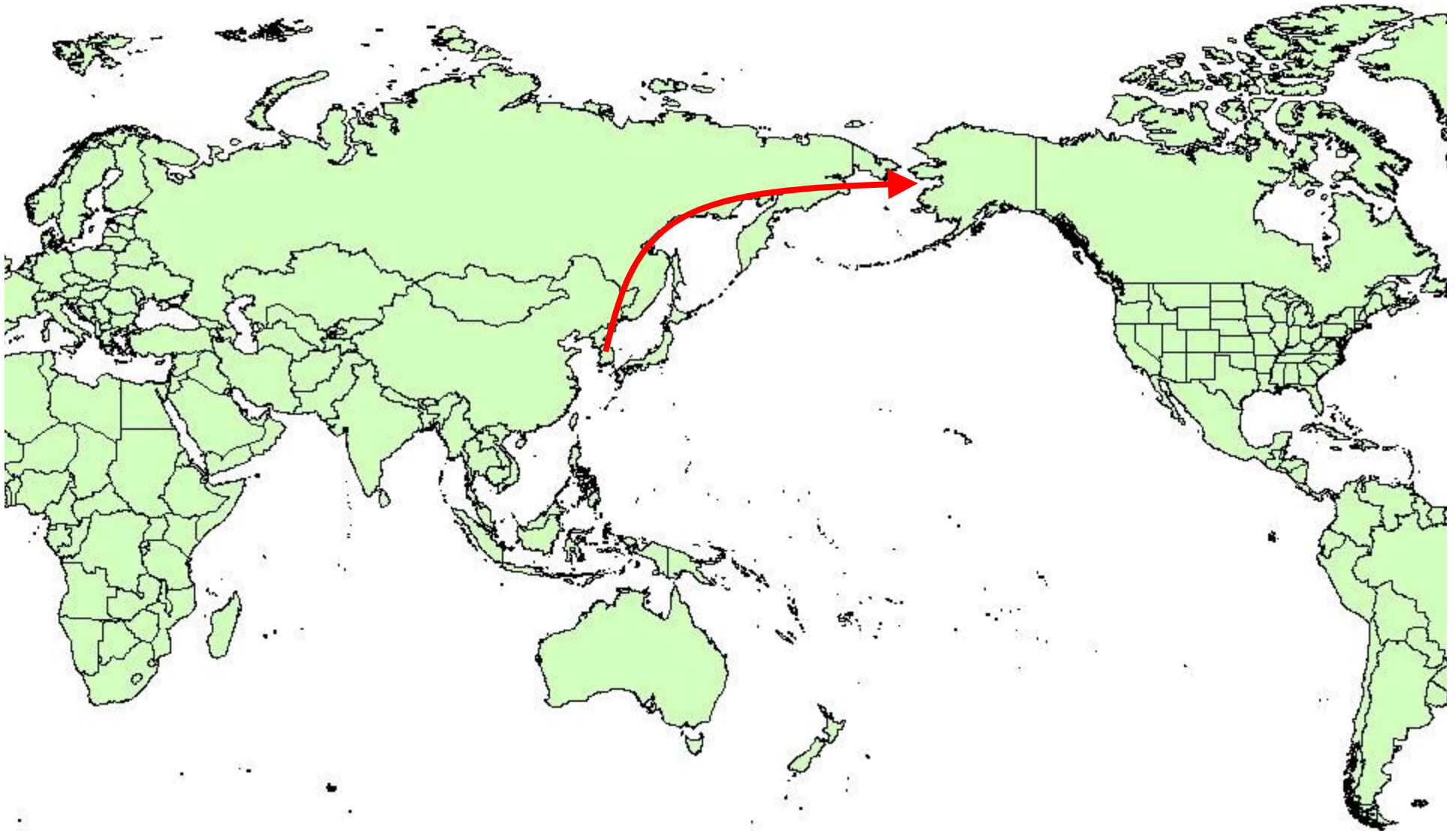
- Proportions of populations that might be active carriers
- How long carrier birds will actively shed the virus
- Seasonality of virus shedding
- Age effects on virus exposure

Direct Contact

- Direct contact from known areas of exposure during winter 2005-2006
- Indirect contact, represents expansion of distribution in summer 2006.

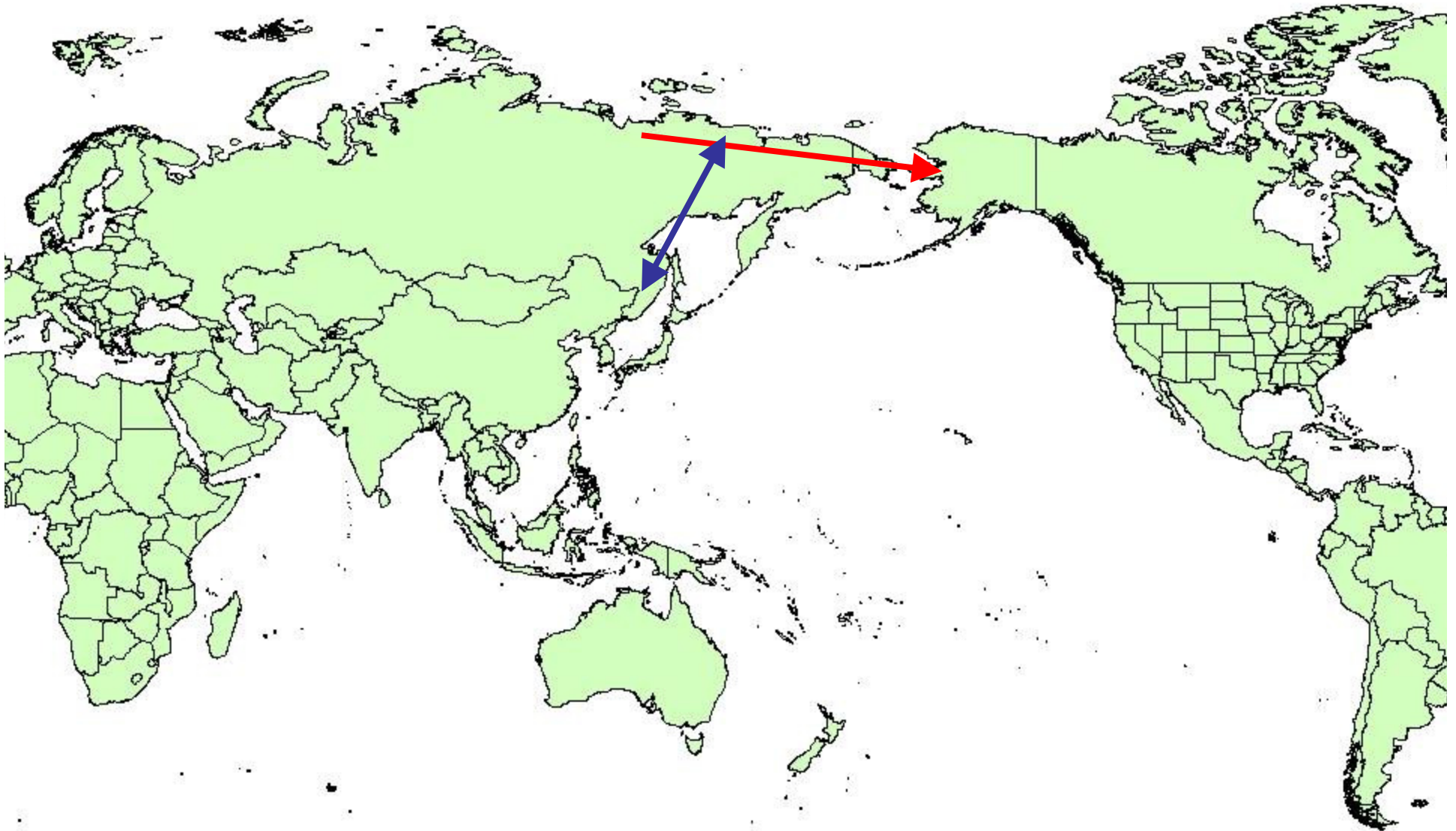
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Winter migrants



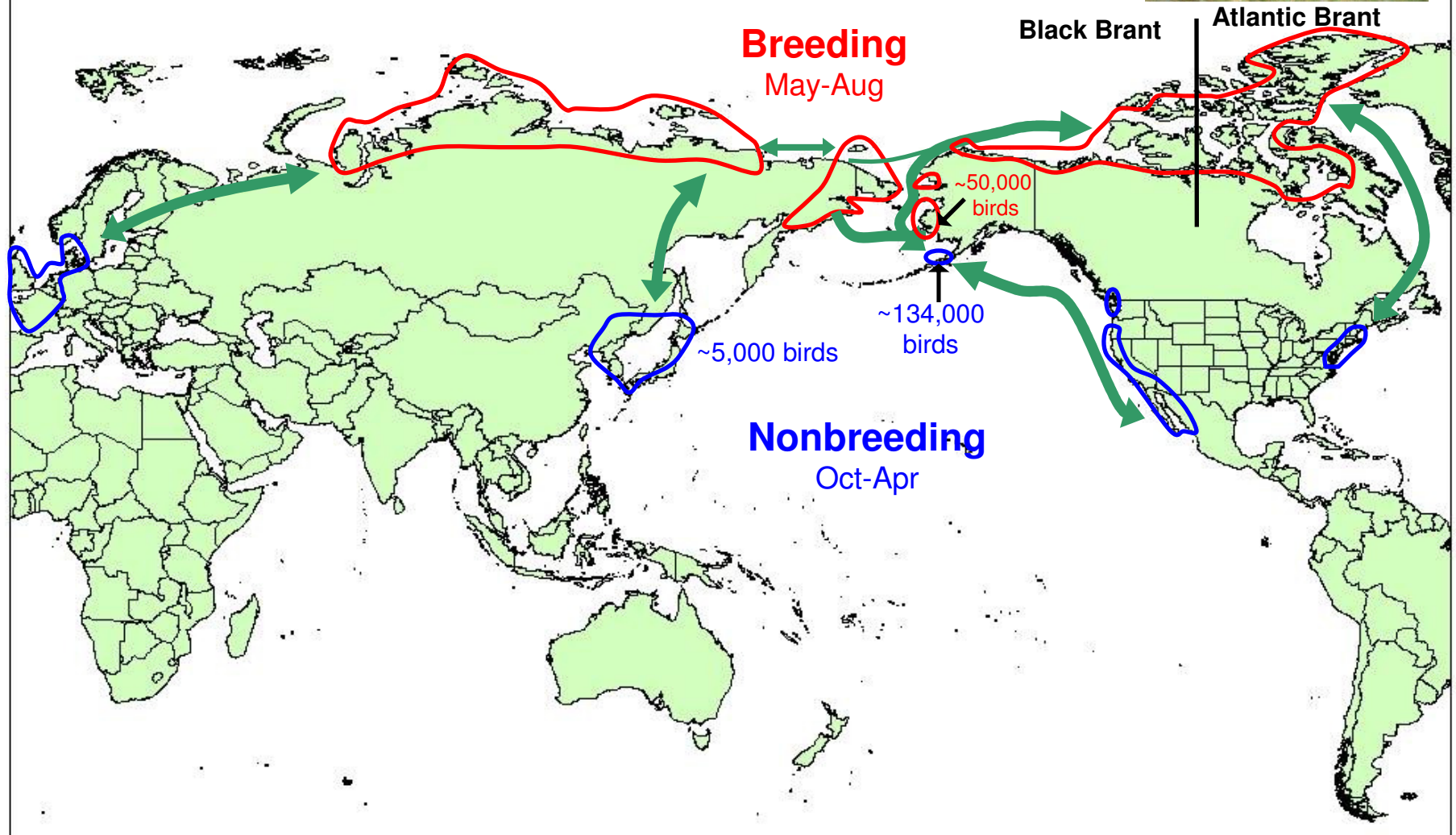
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Fall migrants



DRAFT

Brant



Customs inspection for migratory birds

- What we need to know is where individual birds have been (i.e., coming from), who they have been associated with, and where they are going to...
- Perhaps former governor of Alaska Wally Hickel was right when he said..."you cant just let nature run wild"

Scoring Criteria

- Proportion of population occurring in Asia
- Contact with a known hotspot
- Habitat used in context of likelihood of exposure
- Population size occurring in Alaska in 2006
- Can we obtain a representative sample

Proportion of population in Asia

- Prior to occurring in Alaska (in 2006)
- Scored from 1-5, where 5=100%
 - Wintering
 - Migrating/staging
- Does not consider where in Asia

Contact with known area of exposure

- Does the population determined to be in Asia (previous factor) occur in areas where H5N1 is known to occur?
- We fully accept that scoring of this factor is under a constant flux as new areas of exposure continue to be identified.
- Scored as a 1 or 2

Habitat used

- Here we are thinking of general habitats used in conjunction with likelihood of exposure
 - Loons at sea
 - Dabbling ducks foraging in farm fields
 - Gulls scavenging at landfills or on carcasses
- Again, scoring on this factor may change as we learn more about this particular virus.
 - Environmental exposure.
- Scored as
 - 1 = offshore marine
 - 2 = Estuary
 - 3 = Terrestrial
 - 4 = Freshwater

Population size in Alaska

- Here we are purely thinking in terms of the odds of exposure.
 - More birds, more likely that one or more may have been in contact with the virus.
- This is primarily where we exclude rare and accidental species
 - Rare, Casual or Accidental species
 - Overly difficult to sample
- Scored as 1-4 on a \log_{10} scale: 1,000, 10,000, 100,000, 1,000,000

Sampling Reality

- Odds of obtaining a representative sample
- Not a random sample, but a representative sample.
 - Sub-population structure
 - Cluster sampling?
 - Sample size and distribution
- Logistics
 - Access (can we even get to places where they concentrate)
 - Capture (can we catch them)
- Scored as 1 = no, 2 = maybe, 3 = yes.



Total Score

- Weighting of various criteria
- Criteria are already weighted by range of values
- Scores calculated as the sum of each factor
- Weights may change as we learn more about the characteristics of this particular virus

Criticisms

- These ranking criteria represent one group's opinions, we accept that others may disagree with factors, actual scorings or methods of calculating final scores
- We propose that these scoring be revisited at the end of this year including all available new information.
- Thus, this represents a continuing work in progress.

Finally,

- Thoughts?
 - Ideas?
 - Suggestions?
-
- Realize that if you offer a significant suggestion you are functionally volunteering to serve on the committee that revises these criteria
 - Criticize, and you end up chairing the committee