

Appendix C Phenology of birds occurring on the Mendenhall Wetlands.

This phenology chart includes all bird species that have been documented for the Mendenhall Wetlands by Armstrong and Gordon (2002). When the week of occurrence for a particular species was unknown to us we used the symbols + (accidental or casual), R (rare) or U (uncommon) to correspond to season and abundance on the Mendenhall bird checklist.

We amalgamated all available records of birds on the wetlands. These were entered into Excel spreadsheets, to compile a summary of the seasonal patterns of avian abundance on the wetlands, by species.

The information presented in this section represents 10,881 bird observations on the Mendenhall Wetlands since 1986. For example, one observation could be 30 crows counted on a particular date. These observations were gathered from a variety of sources that included the following:

- Paul Suchanek's observations from 1990 to 2002. Paul has recorded over 5,500 observations of birds on the Mendenhall Wetlands. His observations form a solid foundation for the phenology database.
- Cain, S.L., J.I. Hodges, E. Robinson-Wilson. 1988. *Bird use of the Mendenhall Wetlands in Juneau, Alaska*. U.S. Fish and Wildlife Service. Juneau Office. They conducted bird surveys from February 19, 1986 to February 12, 1987. Units near the airport were visited twice weekly, and more distant units twice monthly. Their emphasis was on waterfowl and other highly visible species, but all birds seen were counted.
- Bob Armstrong and Richard Carstensen's point counts of birds on airport property from January through December 2002. This work was done for SWCA, consultants hired to produce the Environmental Impact Statement for expansion of the Juneau Airport. Counts were conducted monthly throughout the year, with occasional additional surveys during the breeding season.
- Data from the present hotspot study conducted from March 2002, through May 2003. Complete bird surveys of the Mendenhall Wetlands were conducted at least monthly.
- And finally we incorporated observations by local birders Richard Gordon, Steve Zimmerman, Gus van Vliet, and Laurie Craig.

Birds of the Mendenhall Wetlands, Highest Number Seen by Week, 1986 - 2002

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
• = n>0 and <10 ● = n> or = 10 and <100 ● = n> or = 100 and <500 ■ = n> or = 500 and <1,000 ■ = n> or = 1,000												
LOONS												
Red-throated Loon	•											
Pacific Loon	•	•										
Common Loon	•	•	•	•	•	•						
Yellow-billed Loon	•	•	•	•	•	•						
GREBES												
Pied-billed Grebe	•	•	•	•	•	•	•	•	•	•	•	•
Horned Grebe	•	•	•	•	•	•	•	•	•	•	•	•
Red-necked Grebe	•	•	•	•	•	•	•	•	•	•	•	•
Eared Grebe	•	•	•	•	•	•	•	•	•	•	•	•
Western Grebe												
CORMORANTS												
Pelagic Cormorant	•	•	•	•	•	•	•	•	•	•	•	•
HERONS												
Great Blue Heron	•	•	•	•	•	•	•	•	•	•	•	•
Great Egret												
Snowy Egret												
Green Heron												
Black-Crowned Night-Heron												
SWANS, GEESE, DUCKS												
Tundra Swan	•	•	•	•	•	•	•	•	•	•	•	•
Trumpeter Swan	•	•	•	•	•	•	•	•	•	•	•	•
Greater White-fronted Goose												
Snow Goose												
Emperor Goose												
Brant												
Canada Goose	•	•	•	•	•	•	•	•	•	•	•	•
Wood Duck												
Green-winged Teal	•	•	•	•	•	•	•	•	•	•	•	•
Mallard	•	•	•	•	•	•	•	•	•	•	•	•
Northern Pintail	•	•	•	•	•	•	•	•	•	•	•	•
Blue-winged Teal												
Cinnamon Teal												
Northern Shoveler	•	•	•	•	•	•	•	•	•	•	•	•

Birds of the Mendenhall Wetlands, Highest Number Seen by Week, 1986 - 2002

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gadwall	•	•	•	•	•	•	•	•	•	•	•	•
Eurasian Wigeon	•	•	•	•	•	•	•	•	•	•	•	•
American Wigeon	•	•	•	•	•	•	•	•	•	•	•	•
Canvasback	•	•	•	•	•	•	•	•	•	•	•	•
Redhead	•	•	•	•	•	•	•	•	•	•	•	•
Ring-necked Duck	•	•	•	•	•	•	•	•	•	•	•	•
Greater Scaup	•	•	•	•	•	•	•	•	•	•	•	•
Lesser Scaup	•	•	•	•	•	•	•	•	•	•	•	•
Scaup spp.	•	•	•	•	•	•	•	•	•	•	•	•
Harlequin Duck	•	•	•	•	•	•	•	•	•	•	•	•
Long-tailed Duck	•	•	•	•	•	•	•	•	•	•	•	•
Black Scoter	•	•	•	•	•	•	•	•	•	•	•	•
Surf Scoter	•	•	•	•	•	•	•	•	•	•	•	•
White-winged Scoter	•	•	•	•	•	•	•	•	•	•	•	•
Common Goldeneye	•	•	•	•	•	•	•	•	•	•	•	•
Barrow's Goldeneye	•	•	•	•	•	•	•	•	•	•	•	•
Bufflehead	•	•	•	•	•	•	•	•	•	•	•	•
Hooded Merganser	•	•	•	•	•	•	•	•	•	•	•	•
Common Merganser	•	•	•	•	•	•	•	•	•	•	•	•
Red-breasted Merganser	•	•	•	•	•	•	•	•	•	•	•	•
Ruddy Duck	•	•	•	•	•	•	•	•	•	•	•	•
HAWKS, EAGLES												
Osprey	•	•	•	•	•	•	•	•	•	•	•	•
Bald Eagle	•	•	•	•	•	•	•	•	•	•	•	•
Northern Harrier	•	•	•	•	•	•	•	•	•	•	•	•
Sharp-shinned Hawk	•	•	•	•	•	•	•	•	•	•	•	•
Northern Goshawk	•	•	•	•	•	•	•	•	•	•	•	•
Swainson's Hawk	•	•	•	•	•	•	•	•	•	•	•	•
Red-tailed Hawk	•	•	•	•	•	•	•	•	•	•	•	•
Rough-legged Hawk	•	•	•	•	•	•	•	•	•	•	•	•
Golden Eagle	•	•	•	•	•	•	•	•	•	•	•	•
FALCONS												
American Kestrel	•	•	•	•	•	•	•	•	•	•	•	•
Merlin	•	•	•	•	•	•	•	•	•	•	•	•

Birds of the Mendenhall Wetlands, Highest Number Seen by Week, 1986 - 2002

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peregrine Falcon												
Gyrfalcon												
GROUSE, PTARMIGAN												
Blue Grouse												
Rock Ptarmigan												
RAILS, COOTS												
Yellow Rail												
Sora												
American Coot												
SANDHILL CRANE												
Sandhill Crane												
PLOVERS												
Black-bellied Plover												
American Golden-Plover												
Pacific Golden-Plover												
Semipalmated Plover												
Killdeer												
OYSTERCATCHERS												
Black Oystercatcher												
SANDPIPERS												
Greater Yellowlegs												
Lesser Yellowlegs												
Solitary Sandpiper												
Wandering Tattler												
Spotted Sandpiper												
Upland Sandpiper												
Whimbrel												
Hudsonian Godwit												
Bar-tailed Godwit												
Marbled Godwit												
Ruddy Turnstone												
Black Turnstone												
Surf-bird												
Red Knot												

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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
• = n>0 and <10 ● = n> or = 10 and <100 ■ = n> or = 100 and <500 ■ = n> or = 500 and <1,000 ■ = n> or = 1,000												
Sanderling					•	•	•	•	•	•		
Semipalmated Sandpiper				•	•	•	•	•	•	•		
Western Sandpiper				•	•	•	•	•	•	•		
Long-toed Stint				•	•	•	•	•	•	•		
Least Sandpiper				•	•	•	•	•	•	•		
White-rumped Sandpiper				•	•	•	•	•	•	•		
Baird's Sandpiper				•	•	•	•	•	•	•		
Pectoral Sandpiper				•	•	•	•	•	•	•		
Sharp-tailed Sandpiper				•	•	•	•	•	•	•		
Rock Sandpiper				•	•	•	•	•	•	•		
Dunlin				•	•	•	•	•	•	•		
Curlew Sandpiper				•	•	•	•	•	•	•		
Stilt Sandpiper				•	•	•	•	•	•	•		
Buff-breasted Sandpiper				•	•	•	•	•	•	•		
Ruff				•	•	•	•	•	•	•		
Short-billed Dowitcher				•	•	•	•	•	•	•		
Long-billed Dowitcher				•	•	•	•	•	•	•		
Dowitcher spp.				•	•	•	•	•	•	•		
Common Snipe				•	•	•	•	•	•	•		
Wilson's Phalarope				•	•	•	•	•	•	•		
Red-necked Phalarope				•	•	•	•	•	•	•		
JAEGERS, GULLS, TERNS												
Parasitic Jaeger				•	•	•	•	•	•	•		
Franklin's Gull				•	•	•	•	•	•	•		
Little Gull				•	•	•	•	•	•	•		
Bonaparte's Gull				•	•	•	•	•	•	•		
Mew Gull				•	•	•	•	•	•	•		
Ring-billed Gull				•	•	•	•	•	•	•		
California Gull				•	•	•	•	•	•	•		
Herring Gull				•	•	•	•	•	•	•		
Thayer's Gull				•	•	•	•	•	•	•		
Slaty-backed Gull				•	•	•	•	•	•	•		
Lesser Black-backed Gull				•	•	•	•	•	•	•		
Glaucous-winged Gull				•	•	•	•	•	•	•		

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• = n>0 and <10 ● = n> or = 10 and <100 ● = n> or = 100 and <500 ■ = n> or = 500 and <1,000 ■ = n> or = 1,000												
Glaucous Gull					•			•••••	•			
Black-legged Kittiwake				•	•	•	•••••	•••••	•			
Sabine's Gull				•	•	•	•••••	•	•	•		
Caspian Tern				•	•	•	•••••	•••••	•			
Arctic Tern				•	•	•	•••••	•••••	•			
Black Tern				•	•	•	•••••	•••••	•			
ALCIDS												
Common Murre	•	•	•	•	•						•	•
Pigeon Guillemot			•	•	•	•					•	•
Marbled Murrelet	•	•	•	•	•	•			•		•	•
PIGEONS, DOVES												
Rock Dove					•							
Mourning Dove						•						
OWLS												
Great Horned Owl						•					•	
Snowy Owl										•		
Northern Hawk Owl												•
Northern Pygmy-Owl	•										•	
Barred Owl										Fa +		
Short-eared Owl	•	•	•	•	•					•••••	•••••	•
Boreal Owl	Wi +									Fa +		
Northern Saw-whet Owl	Wi +			Sp +								
NIGHTHAWKS												
Common Nighthawk									•	•		
SWIFTS												
Black Swift				Sp +								
Vaux's Swift				•	•	•	•	•	•	•	•	•
HUMMINGBIRDS												
Rufous Hummingbird				•	•	•	•	•	•	•	•	•
KINGFISHERS												
Belted Kingfisher	•	•	•	•	•	•	•	•	•	•	•	•
WOODPECKERS												
Red-breasted Sapsucker			•	•	•	•	•	•	•	•	•	•
Downy Woodpecker	•		•					•				•

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Hairy Woodpecker	•	•		•	•			•	•	•	•	•
Northern Flicker				•	•				•		•	
FLYCATCHERS												
Olive-sided Flycatcher				•	•			•	•			
Western Wood-Pewee				•	•			•	•			
Alder Flycatcher						•	•					
Pacific-slope Flycatcher						•	•					
Say's Phoebe												
Western Kingbird						•						
Eastern Kingbird												
Scissor-tailed Flycatcher							Su +					
							Su +					
SHRIKES												
Northern Shrike	•	•	•	•	•				•	•	•	•
VIREOS												
Warbling Vireo					•	•						
JAYS, MAGPIES, CROWS												
Steller's Jay	•	•	•	•	•							
Black-billed Magpie	•	•	•	•	•							
Northwestern Crow	•	•	•	•	•							
Common Raven	•	•	•	•	•							
LARKS												
Horned Lark				•	•							
SWALLOWS												
Tree Swallow				•	•	•	•	•				
Violet-green Swallow				•	•	•	•	•				
Northern Rough-winged Swallow						•						
Bank Swallow				•	•	•	•	•				
Cliff Swallow				•	•	•	•	•			•	
Barn Swallow				•	•	•	•	•				
CHICKADEES												
Mountain Chickadee												
Boreal Chickadee												
Chestnut-backed Chickadee				•	•							
NUTHATCHES												

Birds of the Mendenhall Wetlands, Highest Number Seen by Week, 1986 - 2002

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Red-breasted Nuthatch												
CREEPERS												
Brown Creeper												
WRENS												
Winter Wren												
DIPPERS												
American Dipper												
KINGLETS												
Golden-crowned Kinglet												
Ruby-crowned Kinglet												
THRUSHES												
Mountain Bluebird												
Swainson's Thrush												
Hermit Thrush												
Dusky Thrush												
American Robin												
Varied Thrush												
MOCKINGBIRDS												
Northern Mockingbird												
STARLINGS												
European Starling												
PIPITS												
Red-throated Pipit												
American Pipit												
WAXWINGS												
Bohemian Waxwing												
Cedar Waxwing												
WOOD WARBLERS												
Tennessee Warbler												
Orange-crowned Warbler												
Yellow Warbler												
Cape May Warbler												
Yellow-rumped Warbler												
Townsend's Warbler												

Birds of the Mendenhall Wetlands, Highest Number Seen by Week, 1986 - 2002

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Blackpoll Warbler												
Northern Waterthrush												
MacGillivray's Warbler												
Common Yellowthroat												
Wilson's Warbler												
TANAGERS												
Western Tanager												
SPARROWS, BUNTINGS												
American Tree Sparrow												
Chipping Sparrow												
Savannah Sparrow												
Fox Sparrow												
Song Sparrow												
Lincoln's Sparrow												
Swamp Sparrow												
Golden-crowned Sparrow												
White-crowned Sparrow												
Harris's Sparrow												
Dark-eyed Junco												
Lapland Longspur												
Smith's Longspur												
Snow Bunting												
BLACKBIRDS												
Red-winged Blackbird												
Western Meadowlark												
Yellow-headed Blackbird												
Rusty Blackbird												
Brewer's Blackbird												
Brown-headed Cowbird												
FINCHES												
Brambling												
Gray-crowned Rosy Finch												
Pine Grosbeak												
Red Crossbill												

