

**Appendix A.** Attributes of species detected in the Oil Sands Bird Monitoring Program in 2013. Bird type identifies target birds as those with foraging modes of dabbling, diving, or wading because they are more likely to come in contact with process-affected water. Within groups, birds are ordered taxonomically with the number assigned by the American Ornithologists' Union. Common names are given for families and species and risk status refers to provincial and federal standards. Font colours highlight species with provincial and federal designations of risk status.

Target	Foraging Guild	Common Family	Common Name	Scientific Name	Alberta Risk Status	Federal Risk Status	AOU
Target	Dabbles	Geese	Greater White-fronted Goose	Anser albifrons	Secure	No listing	14
Target	Dabbles	Geese	Snow Goose	Chen caerulescens	Secure	No listing	17
Target	Dabbles	Geese	Cackling Goose	Branta hutchinsii	Accidental	No listing	21
Target	Dabbles	Geese	Canada Goose	Branta canadensis	Secure	No listing	22
Target	Dabbles	Swans	Tundra Swan	Cygnus columbianus	Secure	No listing	26
Target	Dabbles	Dabbling Ducks	Gadwall	Anas strepera	Secure	No listing	32
Target	Dabbles	Dabbling Ducks	American Wigeon	Anas americana	Secure	No listing	35
Target	Dabbles	Dabbling Ducks	Mallard	Anas platyrhynchos	Secure	No listing	37
Target	Dabbles	Dabbling Ducks	Blue-winged Teal	Anas discors	Secure	No listing	42
Target	Dabbles	Dabbling Ducks	Northern Shoveler	Anas clypeata	Secure	No listing	44
Target	Dabbles	Dabbling Ducks	Northern Pintail	Anas acuta	Sensitive	No listing	46
Target	Dabbles	Dabbling Ducks	Green-winged Teal	Anas crecca	Sensitive	No listing	49
Target	Dabbles	Pelicans	American White Pelican	Pelecanus erythrorhynchos	Sensitive	Not at Risk	205
Target	Dabbles	Rails	American Coot	Fulica americana	Secure	Not at Risk	360
Target	Dabbles	Dabbling Ducks	UNK Dabbling				
Target	Dabbles	Geese	UNK Goose				
Target	Dabbles	Swans	UNK Swan				
Target	Dabbles		UNK Dabbling Non-duck				
Target	Dives	Diving Ducks	Canvasback	Aythya valisineria	Secure	No listing	50
Target	Dives	Diving Ducks	Redhead	Aythya americana	Secure	No listing	51
Target	Dives	Diving Ducks	Ring-necked Duck	Aythya collaris	Secure	No listing	53
Target	Dives	Diving Ducks	Greater Scaup	Aythya marila	Secure	No listing	55
Target	Dives	Diving Ducks	Lesser Scaup	Aythya affinis	Sensitive	No listing	56
Target	Dives	Diving Ducks	Surf Scoter	Melanitta perspicillata	Secure	No listing	63
Target	Dives	Diving Ducks	White-winged Scoter	Melanitta fusca	Special Concern	No listing	64
Target	Dives	Diving Ducks	Long-tailed Duck	Clangula hyemalis	Secure	No listing	66
Target	Dives	Diving Ducks	Bufflehead	Bucephala albeola	Secure	No listing	67
Target	Dives	Diving Ducks	Common Goldeneye	Bucephala clangula	Secure	No listing	68
Target	Dives	Diving Ducks	Barrow's Goldeneye	Bucephala islandica	Secure	No listing	69
Target	Dives	Diving Ducks	Hooded Merganser	Lophodytes cucullatus	Secure	No listing	71
Target	Dives	Diving Ducks	Common Merganser	Mergus merganser	Secure	No listing	72
Target	Dives	Diving Ducks	Red-breasted Merganser	Mergus serrator	Secure	No listing	73
Target	Dives	Diving Ducks	Ruddy Duck	Oxyura jamaicensis	Secure	No listing	75
Target	Dives	Loons	Common Loon	Gavia immer	Secure	Not at Risk	136
Target	Dives	Grebes	Pied-billed Grebe	Podilymbus podiceps	Sensitive	No listing	138
Target	Dives	Grebes	Western Grebe	Aechmophorus occidentalis	Special Concern	No listing	140
Target	Dives	Pelicans	American White Pelican	Pelecanus erythrorhynchos	Sensitive	Not at Risk	205
Target	Dives	Cormorants	Double-crested Cormorant	Phalacrocorax auritus	Secure	Not at Risk	209
Target	Dives	Rails	American Coot	Fulica americana	Secure	Not at Risk	360
Target	Dives	Terns	Black Tern	Chlidonias niger	Sensitive	Not at Risk	497
Target	Dives	Terns	Common Tern	Sterna hirundo	Secure	Not at Risk	501
Target	Dives	Terns	Arctic Tern	Sterna paradisaea	Secure	No listing	502
Target	Dives	Kingfishers	Belted Kingfisher	Megaceryle alcyon	Secure	No listing	912
Target	Dives	Grebes	Eared Grebe	Podiceps nigricollis	Secure	No listing	1985
Target	Dives	Grebes	Horned Grebe	Podiceps auritus	Sensitive	Special Concern	1986
Target	Dives	Grebes	Red-necked Grebe	Podiceps grisegena	Secure	Not at Risk	1987
Target	Dives	Diurnal Raptors	Osprey	Pandion haliaetus	Sensitive	No listing	2005
Target	Dives	Diving Ducks	UNK Diver Duck				
Target	Dives	Diving Ducks	UNK Scaup				
Target	Dives		UNK Diver				
Target	Dives	Diving Ducks	UNK Merganser				
Target	Dives	Terns	UNK Tern				
Target	Dives	Diving Ducks	UNK Scoter				
Target	Dives	Grebes	UNK Grebe				
Target	Wades	Wading Birds	American Bittern	Botaurus lentiginosus	Sensitive	No listing	218
Target	Wades	Wading Birds	Great Blue Heron	Ardea herodias	Sensitive	No listing	224
Target	Wades	Rails	Yellow Rail	Coturnicops noveboracensis	Undetermined	Special Concern	333
Target	Wades	Rails	Sora	Porzana carolina	Sensitive	No listing	348
Target	Wades	Rails	American Coot	Fulica americana	Secure	Not at Risk	360
Target	Wades	Cranes	Sandhill Crane	Grus canadensis	Sensitive	No listing	365
Target	Wades	Cranes	Whooping Crane	Grus americana	At Risk	Endangered	367
Target	Wades	Plovers	Black-bellied Plover	Pluvialis squatarola	Secure	No listing	371
Target	Wades	Plovers	American Golden-Plover	Pluvialis dominica	Secure	No listing	373
Target	Wades	Plovers	Semipalmated Plover	Charadrius semipalmatus	Secure	No listing	381
Target	Wades	Plovers	Killdeer	Charadrius vociferus	Secure	No listing	384
Target	Wades	Stilts	American Avocet	Recurvirostra americana	Secure	No listing	392
Target	Wades	Sandpipers	Spotted Sandpiper	Actitis macularius	Secure	No listing	397

Target	Foraging Guild	Common Family	Common Name	Scientific Name	Alberta Risk Status	Federal Risk Status	AOU
Target	Wades	Sandpipers	Solitary Sandpiper	<i>Tringa solitaria</i>	Secure	No listing	399
Target	Wades	Sandpipers	Greater Yellowlegs	<i>Tringa melanoleuca</i>	Secure	No listing	403
Target	Wades	Sandpipers	Lesser Yellowlegs	<i>Tringa flavipes</i>	Secure	No listing	406
Target	Wades	Sandpipers	Upland Sandpiper	<i>Bartramia longicauda</i>	Sensitive	No listing	410
Target	Wades	Sandpipers	Whimbrel	<i>Numenius phaeopus</i>	Secure	No listing	413
Target	Wades	Sandpipers	Marbled Godwit	<i>Limosa fedoa</i>	Secure	No listing	422
Target	Wades	Sandpipers	Ruddy Turnstone	<i>Arenaria interpres</i>	Secure	No listing	423
Target	Wades	Sandpipers	Sanderling	<i>Calidris alba</i>	Secure	No listing	428
Target	Wades	Sandpipers	Semipalmated Sandpiper	<i>Calidris pusilla</i>	Secure	No listing	429
Target	Wades	Sandpipers	Least Sandpiper	<i>Calidris minutilla</i>	Secure	No listing	435
Target	Wades	Sandpipers	White-rumped Sandpiper	<i>Calidris fuscicollis</i>	Secure	No listing	436
Target	Wades	Sandpipers	Baird's Sandpiper	<i>Calidris bairdii</i>	Secure	No listing	437
Target	Wades	Sandpipers	Pectoral Sandpiper	<i>Calidris melanotos</i>	Secure	No listing	438
Target	Wades	Sandpipers	Dunlin	<i>Calidris alpina</i>	Secure	No listing	442
Target	Wades	Sandpipers	Stilt Sandpiper	<i>Calidris himantopus</i>	Secure	No listing	444
Target	Wades	Sandpipers	Short-billed Dowitcher	<i>Limnodromus griseus</i>	Undetermined	No listing	449
Target	Wades	Sandpipers	Wilson's Snipe	<i>Gallinago delicata</i>	Secure	No listing	452
Target	Wades	Sandpipers	Wilson's Phalarope	<i>Phalaropus tricolor</i>	Secure	No listing	457
Target	Wades	Sandpipers	Red-necked Phalarope	<i>Phalaropus lobatus</i>	Secure	No listing	458
Target	Wades	Unk shorebirds	UNK Shorebird				
Target	Wades	Sandpipers	UNK Yellowlegs				
Target	Wades	Sandpipers	UNK Sandpiper				
Target	Wades	Sandpipers	UNK Calidris				
Target	Wades	Unk Plovers	UNK Plover				
Target	Wades	Sandpipers	UNK Dowitcher				
Target	Wades	Sandpipers	UNK Phalarope				
Target	Wades	Cranes	UNK Crane				
Target	Wades		UNK Wader				
Target		Unk Ducks	UNK Duck				
Non-target	Depredates	Diurnal Raptors	Bald Eagle	<i>Haliaeetus leucocephalus</i>	Sensitive	Not at Risk	270
Non-target	Depredates	Diurnal Raptors	Northern Harrier	<i>Circus cyaneus</i>	Sensitive	Not at Risk	274
Non-target	Depredates	Diurnal Raptors	Sharp-shinned Hawk	<i>Accipiter striatus</i>	Secure	Not at Risk	278
Non-target	Depredates	Diurnal Raptors	Red-tailed Hawk	<i>Buteo jamaicensis</i>	Secure	Not at Risk	305
Non-target	Depredates	Diurnal Raptors	Rough-legged Hawk	<i>Buteo lagopus</i>	Secure	No listing	307
Non-target	Depredates	Diurnal Raptors	Golden Eagle	<i>Aquila chrysaetos</i>	Sensitive	Not at Risk	310
Non-target	Depredates	Diurnal Raptors	American Kestrel	<i>Falco sparverius</i>	Sensitive	No listing	323
Non-target	Depredates	Diurnal Raptors	Merlin	<i>Falco columbarius</i>	Secure	Not at Risk	325
Non-target	Depredates	Diurnal Raptors	Peregrine Falcon	<i>Falco peregrinus</i>	Threatened	Special Concern	331
Non-target	Depredates	Owls	Great Horned Owl	<i>Bubo virginianus</i>	Secure	No listing	681
Non-target	Depredates	Owls	Great Gray Owl	<i>Strix nebulosa</i>	Sensitive	Not at Risk	698
Non-target	Depredates		UNK Depredates				
Non-target	Flies	Nighthawks	Common Nighthawk	<i>Chordeiles minor</i>	Sensitive	Threatened	709
Non-target	Flies	Flycatchers	Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	Undetermined	No listing	1070
Non-target	Flies	Flycatchers	Alder Flycatcher	<i>Empidonax alnorum</i>	Secure	No listing	1140
Non-target	Flies	Flycatchers	Least Flycatcher	<i>Empidonax minimus</i>	Sensitive	No listing	1143
Non-target	Flies	Flycatchers	Eastern Kingbird	<i>Tyrannus tyrannus</i>	Secure	No listing	1196
Non-target	Flies	Swallows	Tree Swallow	<i>Tachycineta bicolor</i>	Secure	No listing	1318
Non-target	Flies	Swallows	Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Secure	No listing	1326
Non-target	Flies	Swallows	Bank Swallow	<i>Riparia riparia</i>	Secure	Threatened	1328
Non-target	Flies	Swallows	Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	Secure	No listing	1329
Non-target	Flies	Swallows	Barn Swallow	<i>Hirundo rustica</i>	Sensitive	Threatened	1331
Non-target	Flies	Starlings	European Starling	<i>Sturnus vulgaris</i>	Exotic	No listing	1509
Non-target	Flies	Longspurs	Lapland Longspur	<i>Calcarius lapponicus</i>	Secure	No listing	1733
Non-target	Flies	Swallows	UNK Swallow				
Non-target	Gleans	Woodpeckers	Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Secure	No listing	956
Non-target	Gleans	Woodpeckers	Northern Flicker	<i>Colaptes auratus</i>	Secure	No listing	979
Non-target	Gleans	Chickadees	Black-capped Chickadee	<i>Poecile atricapillus</i>	Secure	No listing	1334
Non-target	Gleans	Pipits	American Pipit	<i>Anthus rubescens</i>	Secure	No listing	1521
Non-target	Gleans	Warblers	Yellow Warbler	<i>Setophaga petechia</i>	Secure	No listing	1545
Non-target	Gleans	Warblers	Yellow-rumped Warbler	<i>Setophaga coronata</i>	Secure	No listing	1550
Non-target	Gleans	Warblers	Common Yellowthroat	<i>Geothlypis trichas</i>	Sensitive	No listing	1587
Non-target	Gleans	Sparrows	Savannah Sparrow	<i>Passerculus sandwichensis</i>	Secure	No listing	1715
Non-target	Gleans	Sparrows	Song Sparrow	<i>Melospiza melodia</i>	Secure	No listing	1722
Non-target	Gleans	Sparrows	White-throated Sparrow	<i>Zonotrichia albicollis</i>	Secure	No listing	1726
Non-target	Gleans	Longspurs	Lapland Longspur	<i>Calcarius lapponicus</i>	Secure	No listing	1733
Non-target	Gleans	Sparrows	Clay-colored Sparrow	<i>Spizella pallida</i>	Secure	No listing	2048
Non-target	Gleans		UNK Gleans				
Non-target	Gleans	Woodpeckers	UNK Woodpecker				
Non-target	Pecks	Upland Game Birds	Ruffed Grouse	<i>Bonasa umbellus</i>	Secure	No listing	98
Non-target	Pecks	Upland Game Birds	Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>	Sensitive	No listing	107
Non-target	Pecks	Plovers	Killdeer	<i>Charadrius vociferus</i>	Secure	No listing	384
Non-target	Pecks	Terns	Common Tern	<i>Sterna hirundo</i>	Secure	Not at Risk	501

Target	Foraging Guild	Common Family	Common Name	Scientific Name	Alberta Risk Status	Federal Risk Status	AOU
Non-target	Pecks	Doves	Mourning Dove	Zenaidia macroura	Secure	No listing	556
Non-target	Pecks	Woodpeckers	Northern Flicker	Colaptes auratus	Secure	No listing	979
Non-target	Pecks	Flycatchers	Eastern Phoebe	Sayornis phoebe	Sensitive	No listing	1154
Non-target	Pecks	Larks	Horned Lark	Eremophila alpestris	Secure	No listing	1310
Non-target	Pecks	Swallows	Barn Swallow	Hirundo rustica	Sensitive	Threatened	1331
Non-target	Pecks	Thrushes	American Robin	Turdus migratorius	Secure	No listing	1472
Non-target	Pecks	Starlings	European Starling	Sturnus vulgaris	Exotic	No listing	1509
Non-target	Pecks	Pipits	American Pipit	Anthus rubescens	Secure	No listing	1521
Non-target	Pecks	Sparrows	American Tree Sparrow	Spizella arborea	Secure	No listing	1704
Non-target	Pecks	Sparrows	Chipping Sparrow	Spizella passerina	Secure	No listing	1705
Non-target	Pecks	Sparrows	Savannah Sparrow	Passerculus sandwichensis	Secure	No listing	1715
Non-target	Pecks	Sparrows	Fox Sparrow	Passerella iliaca	Secure	No listing	1721
Non-target	Pecks	Sparrows	Song Sparrow	Melospiza melodia	Secure	No listing	1722
Non-target	Pecks	Sparrows	Lincoln's Sparrow	Melospiza lincolni	Secure	No listing	1723
Non-target	Pecks	Sparrows	Swamp Sparrow	Melospiza georgiana	Secure	No listing	1724
Non-target	Pecks	Sparrows	White-throated Sparrow	Zonotrichia albicollis	Secure	No listing	1726
Non-target	Pecks	Sparrows	Harris's Sparrow	Zonotrichia querula	Secure	No listing	1727
Non-target	Pecks	Sparrows	Dark-eyed Junco	Junco hyemalis	Secure	No listing	1730
Non-target	Pecks	Longspurs	Lapland Longspur	Calcarius lapponicus	Secure	No listing	1733
Non-target	Pecks	Longspurs	Smith's Longspur	Calcarius pictus	Secure	No listing	1734
Non-target	Pecks	Buntings	Snow Bunting	Plectrophenax nivalis	Secure	No listing	1744
Non-target	Pecks	Blackbirds	Red-winged Blackbird	Agelaius phoeniceus	Secure	No listing	1772
Non-target	Pecks	Blackbirds	Rusty Blackbird	Euphagus carolinus	Sensitive	Special Concern	1784
Non-target	Pecks	Blackbirds	Brewer's Blackbird	Euphagus cyanocephalus	Secure	No listing	1785
Non-target	Pecks	Blackbirds	Common Grackle	Quiscalus quiscula	Secure	No listing	1786
Non-target	Pecks	Blackbirds	Brown-headed Cowbird	Molothrus ater	Secure	No listing	1795
Non-target	Pecks	Sparrows	Le Conte's Sparrow	Ammodramus leconteii	Secure	No listing	2040
Non-target	Pecks	Sparrows	Clay-colored Sparrow	Spizella pallida	Secure	No listing	2048
Non-target	Pecks	Blackbirds	Yellow-headed Blackbird	Xanthocephalus xanthocephalus	Secure	No listing	2067
Non-target	Pecks	Finches	Purple Finch	Carpodacus purpureus	Secure	No listing	10351
Non-target	Pecks		UNK Passerine				
Non-target	Pecks		UNK Pecks				
Non-target	Pecks	Sparrows	UNK Sparrow				
Non-target	Pecks	Blackbirds	UNK Blackbird				
Non-target	Scavenges	Gulls	Ring-billed Gull	Larus delawarensis	Secure	No listing	465
Non-target	Scavenges	Gulls	California Gull	Larus californicus	Secure	No listing	466
Non-target	Scavenges	Gulls	Herring Gull	Larus argentatus	Secure	No listing	467
Non-target	Scavenges	Gulls	Franklin's Gull	Leucophaeus pipixcan	Secure	No listing	479
Non-target	Scavenges	Corvids	Black-billed Magpie	Pica hudsonia	Secure	No listing	1293
Non-target	Scavenges	Corvids	American Crow	Corvus brachyrhynchos	Secure	No listing	1296
Non-target	Scavenges	Corvids	Common Raven	Corvus corax	Secure	No listing	1307
Non-target	Scavenges	Blackbirds	Rusty Blackbird	Euphagus carolinus	Sensitive	Special Concern	1784
Non-target	Scavenges	Corvids	Gray Jay	Perisoreus canadensis	Secure	No listing	1978
Non-target	Scavenges	Gulls	Bonaparte's Gull	Chroicocephalus philadelphia	Secure	No listing	1993
Non-target	Scavenges	Gulls	UNK Gull				
Non-target	Scavenges	Gulls	UNK BH Gull				
Non-target	Scavenges	Corvids	UNK Corvid				