



Pre-Permitting Environmental / Socio-Economic Data Report Series

Report Series N- Terrestrial Wildlife and Habitats

Report N-8 Raptor Tables 2004-2007

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Preliminary data. Do not cite or quote.

The Pebble Partnership is providing environmental and socio-economic baseline data collected to inform the development of the Pebble Project to state and federal agencies, project stakeholders and the general public prior to project permitting as part of its commitment to full and open disclosure.

A comprehensive Environmental Baseline Document (EBD) will subsequently be prepared and appended to future project permit applications. The EBD will also be made publicly available when complete.

Collected for the Pebble Partnership by:



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TABLE N-8.1

Dates of Aerial Surveys for Raptors in the Mine Study Area, 2004 and 2005

Survey Type	Species of Interest	2004	2005	2006
Occupancy Survey	Tree-nesting species	April 22	May 6-7	
Occupancy Survey	Cliff-nesting species	May 24-26	May 21-25	
Productivity Survey	Early nesting species	—	July 1	
Productivity Surveys	Later nesting species	—	Mid-July, Mid-August	
Late Winter Survey	Bald Eagle	—	February 22	
Early Winter Survey	Bald Eagle	—	November 10	November 13

TABLE N-8.2

Status of Raptor Species Observed during Aerial Surveys in the Mine Study Area, April-May 2004, May-August 2005

Common Name	Scientific Name	Status	References ^a
Northern Harrier	<i>Circus cyaneus</i>	Probably Breeding	This study, 1, 2, 3
Sharp-shinned Hawk	<i>Accipiter striatus</i>	Rare visitor	This study, 1, 3
Rough-legged Hawk	<i>Buteo lagopus</i>	Breeding	This study, 4
Golden Eagle	<i>Aquila chrysaetos</i>	Breeding	This study
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Breeding	This study, 4
Osprey	<i>Pandion haliaetus</i>	Probable Breeding	This study
Merlin	<i>Falco columbarius</i>	Breeding	This study
Gyr Falcon	<i>Falco rusticolus</i>	Breeding	This study
Short-eared Owl	<i>Asio flammeus</i>	Probably Breeding	This study
Great Horned Owl	<i>Bubo virginianus</i>	Breeding	This study, 3
Common Raven	<i>Corvus corax</i>	Breeding	This study, 3

References:

- a. 1) Cahalane, 1959; 2) Williamson and Peyton, 1962; 3) Racine and Young, 1978; 4) R. Russell, pers. comm.

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TABLE N-8.3
Numbers and Status of Raptor Nests in the Mine Study Area, 2004 and 2005

Species	2004			2005		
	Unoccupied	Occupied (%)	Total	Unoccupied	Occupied (%)	Total
Rough-legged Hawk	3	2 (40)	5	4	6 (60)	10
Golden Eagle	5	4 (44)	9	11	3 (21)	14
Bald Eagle	5	5 (50)	10	14	7 (33)	21
Osprey	0	0	0	1	0 (0)	1
Merlin	0	0	0	0	2 (100)	2
Gyrfalcon	1	6 (86)	7	4	5 (56)	9
Great Horned Owl	0	1 (100)	1	0	1 (100)	1
Common Raven	0	2 (100)	2	2	4 (67)	6
Unidentified raptor ^a	7	0 (0)	7	7	0 (0)	7
Total nests	21	20 (49)	41	43	28 (39)	71

Notes:

- a. "Unidentified raptor" includes remnant stick nests on cliffs and some smaller stick nests in trees used by woodland species such as Northern Goshawks and Great Horned Owls.

TABLE N-8.4
Nesting Success and Productivity of Raptor Nests in the Mine Study Area, 2005

Species	No.	No.	%	No.	Young/	Young/
	Occupied	Successful	Successful		Occupied	Success.
	Nests	Nests	Nests	Young	Nest	Nest
Rough-legged Hawk	6	4	67	9	1.5	2.3
Golden Eagle	3	2	67	2	0.7	1.0
Bald Eagle	7	5	71	8	1.1	1.6
Gyrfalcon	5	4	80	10	2.0	2.5
Great Horned Owl	1	1	100	2	2	2

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TABLE N-8.5

Dates of Aerial Surveys for Raptors in the Transportation-corridor Study Area, Bristol Bay Drainages, 2004-2006

Survey Type	Species of Interest	2004	2005	2006
Occupancy Survey	Tree-nesting species	April 22	May 6-7	
Occupancy Survey	Cliff-nesting species	May 24-26	May 21-25	
Productivity Survey	Early nesting species	—	July 1	
Productivity Surveys	Later nesting species	—	Mid-July, Mid-August	
Late Winter Survey	Bald Eagle	—	February 22	
Early Winter Survey	Bald Eagle	—	November 10	November 13 December 7-8

TABLE N-8.6

Status of Raptor Species and Common Ravens Observed during Aerial Surveys in the Transportation-corridor Study Area, Bristol Bay Drainages, April-May 2004 and May-August 2005

Common Name	Scientific Name	Status	References ^a
Northern Harrier	<i>Circus cyaneus</i>	Probably Breeding	1, 2, 3, 5
Northern Goshawk	<i>Accipiter gentilis</i>	Probably Breeding	This study, 4
Rough-legged Hawk	<i>Buteo lagopus</i>	Breeding	This study, 4
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Breeding	This study
Golden Eagle	<i>Aquila chrysaetos</i>	Breeding	This study
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Breeding	This study, 4
Osprey	<i>Pandion haliaetus</i>	Breeding	This study, 4
Merlin	<i>Falco columbarius</i>	Probably Breeding	This study, 5
Gyrfalcon	<i>Falco rusticolus</i>	Breeding	This study, 4
Peregrine Falcon	<i>Falco peregrinus</i>	Breeding	This study
Short-eared Owl	<i>Asio flammeus</i>	Probably Breeding	This study
Great Horned Owl	<i>Bubo virginianus</i>	Breeding	This study, 3
Common Raven	<i>Corvus corax</i>	Breeding	This study, 3

References:

a. 1) Cahalane, 1959; 2) Williamson and Peyton, 1962; 3) Racine and Young, 1978; 4) Russell, pers. comm.; 5) University of Alaska Museum, 2003.

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TABLE N-8.7

Numbers and Status of Raptor and Common Raven Nests in the Transportation-corridor Study Area, Bristol Bay Drainages, 2004 and 2005

Species	2004			2005		
	Unoccupied	Occupied (%)	Total	Unoccupied	Occupied (%)	Total
Rough-legged Hawk	1	0 (0)	1	1	1 (50)	2
Red-tailed Hawk	0	0	0	0	1 (100)	1
Golden Eagle	19	1 (5)	20	19	3 (14)	22
Bald Eagle	23	8 (26)	31	26	24 (48)	50
Osprey	0	2 (100)	2	1	5 (83)	6
Gyrfalcon	1	1 (50)	2	2	0 (0)	2
Peregrine Falcon	0	2 (100)	2	0	3 (100)	3
Great Horned Owl	0	0 (0)	0	0	3 (100)	3
Common Raven	3	4 (57)	7	9	6 (40)	15
Unidentified raptor ^a	6	0 (0)	6	11	0 (0)	11
Total nests	53	18 (25)	71	69	46 (40)	115

Notes:

a. "Unidentified raptor" includes remnant stick nests on cliffs and some smaller stick nests in trees used by woodland species such as Northern Goshawks and Great Horned Owls.

TABLE N-8.8

Nesting Success and Productivity of Raptor Nests in the Transportation-corridor Study Area, Bristol Bay Drainages, 2005^a

Species	No. Occupied Nests	No. Successful Nests	% Successful Nests	No. Young	Young/Success. Nest	Young/ Occupied Nest
Red-tailed Hawk	1	1	100	3	3.0	3.0
Golden Eagle	3	3	100	6	2.0	2.0
Bald Eagle	24	8	33	12	1.5	0.5
Osprey	5	5	100	10	2.0	2.0
Peregrine Falcon	3	1	33	2	2.0	0.7

a. One successful Great Horned Owl nest is not included in this table because an accurate count of young could not be determined.

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