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Appendix D. Prey and crustacean occurrences by region and scat collection site (Fig. 1) using concurrent DNA methods on scat soft part matrix and prey hard part ID analysis. Scat denotes the number of scats in which prey was positively detected by DNA methods (excluding incidences of crustaceans). Occurrences in brackets (prey DNA only) represent additional new incidences of prey undetected by hard part ID analysis of the same scat. Yellow highlighted cells indicate for comparison prey family/species considered primary by each method.

		Geographical region	British Columbia									
		Identification method	Prey DNA occurrences					Prey hard part occurrences				
		Scat collection site code	SI	LI	NDR	NR	All	SI	LI	NDR	NR	All
		Number of scats compared	12	5	18	19	54	12	5	18	19	54
Prey Grouping	Taxonomic ID	Common name										
<i>Gadidae</i> - walleye pollock	<i>Theragra chalcogramma</i>	Walleye Pollock				1	1		2	1	13	16
<i>Gadidae</i> - Pacific cod	<i>Gadus macrocephalus</i>	Pacific cod	1			10(1)	11	1			12	13
<i>Gadidae</i> - Pacific hake	<i>Merluccius productus</i>	Pacific hake	1	2	3		6	1	5	7	6	19
<i>Gadidae</i> - other <i>Gadidae</i>	<i>Eleginus gracilis</i>	Saffron cod					0				1	1
<i>Gadidae</i> - other <i>Gadidae</i>		Gadid						1			1	2
<i>Salmonidae</i>	<i>Oncorhynchus tshawytscha</i>	Chinook salmon	1(1)	1	1	4	7					0
<i>Salmonidae</i>	<i>Oncorhynchus kisutch</i>	Coho salmon	1(1)				1					0

<i>Salmonidae</i>	<i>Oncorhynchus gorbuscha</i>	Pink salmon	3(2)		15(1)		18					0
<i>Salmonidae</i>	<i>Oncorhynchus keta</i>	Chum salmon	2(1)		2		4					0
<i>Salmonidae</i>	<i>Oncorhynchus nerka</i>	Sockeye salmon	2(1)				2					0
<i>Salmonidae</i>	<i>Salmo salar</i>	Atlantic salmon					0					0
<i>Salmonidae</i>	<i>Salvelinus alpinus</i>	Arctic charr*					0					0
<i>Salmonidae</i>	<i>salmonidae</i>	Salmon					0	5	2	16	4	27
Forage fish – Pacific herring	<i>Clupea pallasii</i>	Pacific herring	3(1)		2(1)	14(1)	19	7	1	4	18	30
Forage fish – Pacific sand lance	<i>Ammodytes hexapterus</i>	Pacific sand lance					0	6				6
Forage fish – other forage fish	<i>Sardinops caeruleus</i>	Pacific sardine	2(1)				2	2				2
Forage fish – other forage fish	<i>Hypmesus pretiosus</i>	Surf smelt			1(1)		1					0
<i>Scorpaenidae</i>	<i>Sebastes alutus</i>	Pacific ocean perch	1				1					0
<i>Scorpaenidae</i>	<i>Sebastes melanops/ flavidus</i>	Black/yellowtail rockfish	2(1)				2					0
<i>Scorpaenidae</i>	<i>Sebastes ruberrimus</i>	Yelloweye rockfish				1	2					0
<i>Scorpaenidae</i>	<i>Sebastes sp.</i>	Inshore rockfish				1	1					0
<i>Scorpaenidae</i>		Rockfish						4	2		7	13
<i>Eopsettinae</i> - Arrowtooth flounder	<i>Atheresthes stomias</i>	Arrowtooth flounder	3				3	5	4		1	10
Sole/Flounder group	<i>Pseudopleuronectes herzensteini</i>	Littlemouth flounder*					0					0
Sole/Flounder group	<i>Platichthys stellatus</i>	Starry flounder					0				1	1
Sole/Flounder group	<i>Hippoglossoides elassodon</i>	Flathead sole		1(1)			1					0

Sole/Flounder group	<i>Parophrys vetulus</i>	Lemon sole		1(1)		1(1)	2					0
Sole/Flounder group	<i>Glyptocephalus zachirus</i>	Rex sole					0					0
Sole/Flounder group	<i>Limanda aspera</i>	Yellowfin sole	2(2)			1	3					0
Sole/Flounder group	<i>Psettichthys melanostictus</i>	Sandsole		1(1)			1					0
Sole/Flounder group	<i>Lepidopsetta bilineata</i>	Southern rock sole	2(1)			1	3	2				2
Sole/Flounder group	<i>Lyopsetta exilis</i>	Slender sole					0				5	5
<i>Hippoglossinae</i> - other <i>Pleuronectidae</i>	<i>Hippoglossus stenolepsis</i>	Pacific halibut	1(1)				1					0
Pleuronectidae - other <i>Pleuronectidae</i>		Flatfish					0					0
<i>Cephalopoda</i>	<i>Berryteuthis magister</i>	Armhook Squid					0					0
<i>Cephalopoda</i>	<i>Loliginidae</i>	Squid					0				2	2
<i>Cephalopoda</i>	<i>Octopodidae</i>	Octopus					0				1	1
<i>Cephalopoda</i>		Cephalopods				1(1)	1			1		1
<i>Hexagrammidae</i> - Atka mackerel	<i>Pleurogrammus monopterygius</i>	Atka Mackerel					0					0
<i>Hexagrammidae</i> - other <i>Hexagrammidae</i>	<i>Ophiodon elongatus</i>	Lingcod					0				1	1
<i>Hexagrammidae</i> - other <i>Hexagrammidae</i>	<i>Hexagrammos decagrammus</i>	Kelp greenling	1(1)				1					0
<i>Hexagrammidae</i> - other <i>Hexagrammidae</i>	<i>Hexagrammos lagocephalus</i>	Rock greenling					0					0
<i>Hexagrammidae</i> - other <i>Hexagrammidae</i>		Hexagrammids					0					0

<i>Elasmobranchii</i>	<i>Raja rhina</i>	Long-nose skate				1	1					0
<i>Elasmobranchii</i>	<i>Rajidae</i>	Rays					0	1	2		10	13
<i>Elasmobranchii</i>		Rays, skates and sharks	3(3)				3					0
<i>Elasmobranchii</i>	<i>Squalidae</i>	Dogfish					0	1		1	6	8
<i>Batrachoididae</i> - Plainfin Midshipman	<i>Porichthys notatus</i>	Plainfin midshipman					0				9	9
<i>Cyclopteridae</i>	<i>Aptocyclus ventricosus</i>	Smooth lumpsucker					0					0
<i>Cyclopteridae</i>	<i>Eumicrotremus orbis</i>	Pacific spiny lumpsucker		1(1)		1(1)	2					0
<i>Cottidae</i>	<i>Myoxocephalus polyacanthocephalus</i>	Great sculpin					0					0
<i>Cottidae</i>	<i>Hemilepidotus jordani</i>	Yellow irish lord					0					0
<i>Cottidae</i>	<i>Icelinus filamentosus</i>	Threadfin sculpin				1(1)	1					0
<i>Cottidae</i>		Sculpin					0					0
<i>Agonidae</i>	<i>Agonopsis vulsa</i>	Northern spearnose poacher		1(1)			1					0
<i>Agonidae</i>	<i>Podothecus acipenserinus</i>	Sturgeon poacher					0					0
<i>Agonidae</i>	<i>Ocella dodecaedron</i>	Bering poacher					0					0
<i>Trichondontidae</i> - Pacific sandfish	<i>Trichodon trichodon</i>	Pacific sandfish					0					0
<i>Liparidae</i>		Snailfish					0					0
Remaining fish species - <i>Petromyzontidae</i>	<i>Lampetra tridentata</i>	Pacific lamprey					0				1	1
Remaining fish species - <i>Zaproridae</i>		Prowfish	1(1)				1					0

Remaining fish species - <i>Chimaeridae</i>	<i>Hydrolagus colliei</i>	Ratfish					0				1	1
Remaining fish species - <i>Stichaeidae</i>	<i>Anoplarchus purpurescens</i>	High cockscomb					0				1	1
Remaining fish species - <i>Stichaeidae</i>		Pricklebacks					0					0
Remaining fish species - <i>Gasterosteidae</i>	<i>Gasterosteus aculeatus</i>	Three spine Stickleback					0					0
Remaining fish species - unidentified fish		Unidentified fish	1		2	1	4	2				2
		All prey	33	8	26	39	106	38	18	30	101	187
Crustacea	Cancer magister	Dungeness crab	2		2		4					n/a
Crustacea	Austinixa sp.	Pea crab			1		1					n/a
Crustacea	Petrolisthes sp.	Porcelain crab	5	1			6					n/a
Crustacea	Cancridae	Cancer Crab	1		1	2	4					n/a
Crustacea	Pandalus danae	Coonstripe shrimp				1	1					n/a
Crustacea	Pandalus platyceros	Spot prawns	7	5	4	5	21					n/a
Crustacea	Pandalidae	pandalid shrimp	1				1					n/a
Crustacea		Crustacean		3	3	3	9					n/a
		All crustaceans	16	9	11	11	47					

Note: Sole/Flounder group contains three subfamilies: Hippoglossoidinae, Lyopsettiniae and Pleuronectinae

* denotes species identification based on DNA best sequence matching protocols but species known range outside geographical range of study

Continued to the right of table above

Eastern Aleutian Islands														Overall	
Prey DNA occurrences							Prey hard part occurrences							Prey DNA occurrences	Prey hard part occurrences
NAR	W B	RE	BP	RL	CI	All	NAR	WB	RE	BP	RL	CI	All	All	All
7	7	9	15	11	7	56	7	7	9	15	11	7	56	110	110
3(1)	4		3(2)			10	4	6	2	6		2	20	11 (3)	36
2(1)			2	1(1)	2(1)	7	1	1		5	1	1	9	18 (4)	22
						0							0	6	19
						0							0	0	1
						0							0	0	2
						0							0	7(1)	0
						0							0	1(1)	0
1(1)						1							0	19(4)	0
	1(1)	2(1)	1(1)	4(2)	1	9							0	13(6)	0
			1(1)	1		2							0	4(2)	0
	1(1)					2							0	2(2)	0
				1		1							0	1(0)	0
						0			2	1	5	2	10	0(0)	37
						0							0	19(3)	30
						0	1	4		11	1		17	0	23
						0							0	2(1)	2

						0							0	1(1)	0
						0							0	1	0
						0							0	2(1)	0
						0							0	2	0
	1(1)					1							0	2(1)	0
						0	1						1	0	14
1		2(1)	2			5	5		2	5	1		13	8(1)	23
			1(1)			1							0	1(1)	0
						0							0	0	1
1(1)						1							0	2(2)	0
			2(1)			2							0	4(3)	0
			5			5				10	1		11	5	11
						0							0	3(2)	0
						0							0	1(1)	0
1(1)	1		3	2(1)	2(1)	9	1	1		5	2	1	10	12(4)	12
						0							0	0	5
						0							0	1(1)	0
						0		1					1	0	1
			6(3)	2(2)		8							0	8(5)	0
						0							0	0	2
						0				2			2	0	3
						0				4			4	1(1)	5
		8	1(1)	8	1(1)	18			7	2	8		17	18(2)	17
						0							0	0	1
						0							0	1(1)	0
					2(2)	2				1			1	2(2)	1

						0		3	1				4	0	4
		1(1)		2(2)	2(2)	5							0	6(5)	0
				1	1(1)	2		1					1	2(1)	14
						0							0	3(3)	0
						0							0	0	8
						0							0	0	9
		2	3(1)	2(1)		7			2	4	1		7	7(2)	7
						0							0	2(2)	0
					1(1)	1							0	1(1)	0
1(1)						1	4		1	6		1	12	1(1)	12
						0							0	1(1)	0
			1			1	1						1	1	1
	1(1)					1							0	2(2)	0
	1					1							0	1	0
						0		1					1	0	1
						0	1	1		1	1		4	0	4
						0	1		1	1			3	0	3
						0							0	0	1
						0							0	1(1)	0
						0							0	0	1
						0							0	0	1
						0				1			1	0	1
						0		1					1	0	1
		2	2			4					1	1	2	8	4
10	11	17	33	24	12	107	20	20	18	65	22	8	15 3	214 (75)	340

