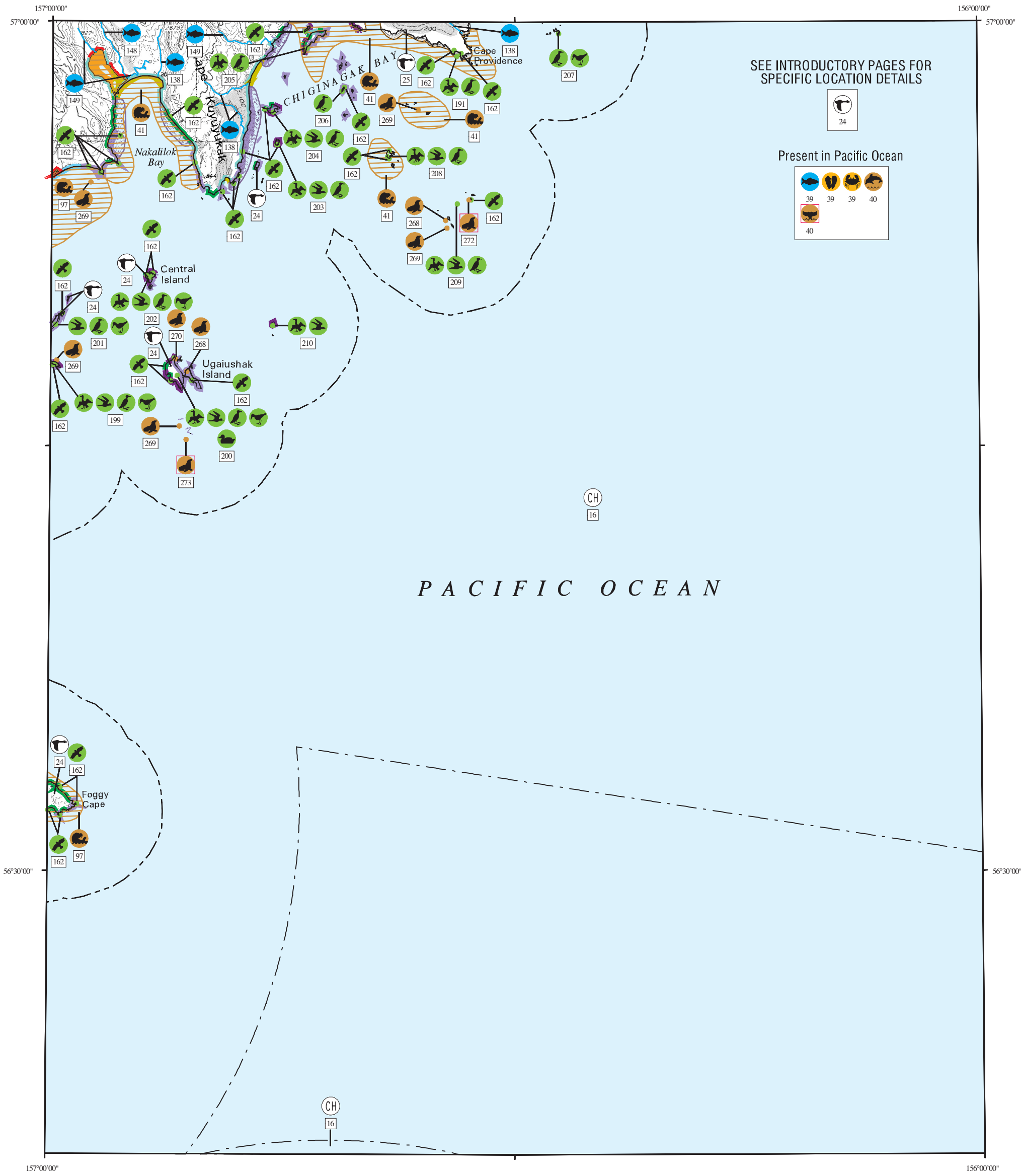


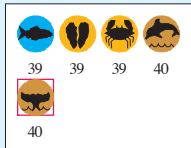
ENVIRONMENTAL SENSITIVITY INDEX MAP



SEE INTRODUCTORY PAGES FOR
SPECIFIC LOCATION DETAILS



Present in Pacific Ocean



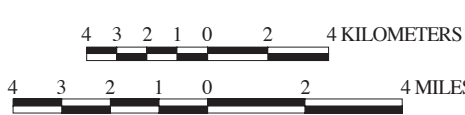
PACIFIC OCEAN

SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY SHORES
- 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK, MUD, OR CLAY
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES AND SHELTERED SCARPS IN MUD AND CLAY
- 8E PEAT SHORELINES
- 9A SHELTERED TIDAL FLATS
- 10A SALT-AND BRACKISH-WATER MARSHES

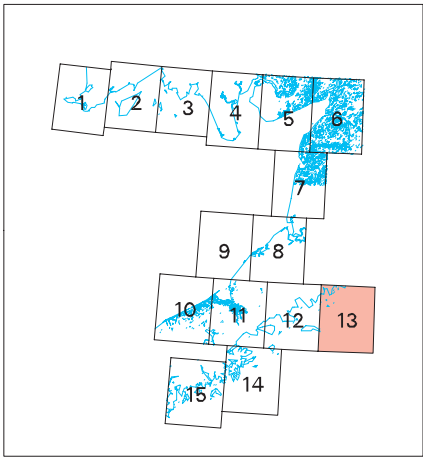


SCALE 1:250000



Not For Navigation
Published: January 2004

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division



Bristol Bay, AK **ESI-13**

BIOLOGICAL RESOURCES:

BIRD :

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating		Molting
162	Bald eagle						X	X	X	X	X						APR-AUG	-		-
191	Black-legged kittiwake	420					X	X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Red-faced cormorant	240					X	X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
199	Black oystercatcher	8					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Double-crested cormorant	2					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	150					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	200					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet	30					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant	60					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	200					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Red-faced cormorant	720					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	6,000					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
200	Thick-billed murre	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	14,000					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Ancient murrelet	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Black oystercatcher	52					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Black-legged kittiwake	9,000					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Common eider	27					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Double-crested cormorant	68					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Fork-tailed storm-petrel	3,000					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	1,600					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	18,200					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Leach's storm-petrel	100					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Murre	5,113					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet	100					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant	114					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	275					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Red-faced cormorant	346					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Rhinoceros auklet	30					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
201	Black oystercatcher	20					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	300					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	400					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet	80					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	100					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	300					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
202	Ancient murrelet	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Black oystercatcher	6					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Fork-tailed storm-petrel	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	320					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	5,000					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Leach's storm-petrel	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet	450					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant	10					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	10					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Red-faced cormorant	350					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	5,000					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
203	Black-legged kittiwake	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Cormorant	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
204	Black-legged kittiwake	14,050					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre	560					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	30					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	100					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Murre	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Red-faced cormorant	15					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Thick-billed murre	240					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	100					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
205	Cormorant	60					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	100					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
206	Horned puffin	6					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	13					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	54					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
207	Black oystercatcher	4					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	100					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	10					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	40					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
208	Cormorant	30					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Fork-tailed storm-petrel	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	20					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin	20					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin	200					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
209	Glaucous-winged gull	90					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet	UNKNOWN					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant	4					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot	10					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
210	Cormorant	30					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull	5					X	X	X	X	X	X					JUN-JUL	APR-MAY	AUG-OCT	-

FISH:

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
39	Arrowtooth flounder				X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	DEC-MAY	MAR-AUG	JAN-DEC	JAN-DEC
	Atka mackerel				X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	JUN-AUG	SEP-FEB	JAN-DEC	JAN-DEC
	Chinook salmon								X	X	X	X					-	-	-	MAY-JUN	MAY-AUG
	Chum salmon (dog)								X	X	X	X					-	-	-	MAY-JUN	JUN-AUG
	Coho salmon (silver)								X	X	X	X	X	X			-	-	-	MAY-JUN	JUL-OCT
	Dolly varden								X	X	X	X	X				-	-	-	MAY-JUN	MAY-SEP
	Dover sole				X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	MAR-AUG	JAN-DEC	JAN-DEC	JAN-DEC
	Flathead sole				X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	DEC-MAR	APR-AUG	JAN-DEC	JAN-DEC
	Pacific cod				X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	-	-	JAN-DEC	JAN-DEC
	Pacific halibut									X	X	X	X				-	-	-	-	JUL-OCT
	Pink salmon (humpy)								X	X	X						-	-	-	MAY-JUN	JUN-JUL
	Rex sole				X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	MAY-JUN	MAY-JUN	JAN-DEC	JAN-DEC
	Rock sole				X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	DEC-SEP
	Rougheye rockfish				X	X	X	X	X	X	X	X	X	X	X	X	JUL-DEC	-	-	-	JAN-DEC
	Sablefish (blackcod)				X	X	X	X	X								JAN-MAY	-	-	-	JAN-MAY
	Sculpin				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shortraker rockfish				X	X	X	X	X	X	X	X	X	X	X	X	JUL-DEC	-	-	-	JAN-DEC
	Sockeye salmon (red)								X	X	X	X					-	-	-	MAY-JUN	MAY-AUG
	Walleye pollock				X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	MAR-JUL	JAN-DEC	JAN-DEC
	Yellowfin sole				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	JUN-AUG	JUN-NOV	JAN-DEC	MAY-AUG
138	Pink salmon (humpy)				X	X	X	X	X	X	X	X	X	X	X	X	AUG-SEP	SEP-MAR	MAR-MAY	MAY-JUN	JUN-SEP

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Bristol Bay: ESIMAP 13 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH:																					
RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
148	Chum salmon (dog)				X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	AUG-MAR	MAR-MAY	JAN-DEC	JUN-SEP
	Coho salmon (silver)				X	X	X	X	X	X	X	X	X	X	X	X	SEP-NOV	OCT-MAR	MAR-MAY	JAN-DEC	JUL-NOV
	Pink salmon (humpy)				X	X	X	X	X	X	X	X	X	X	X	X	AUG-SEP	SEP-MAR	MAR-MAY	MAY-JUN	JUN-SEP
149	Chum salmon (dog)				X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	AUG-MAR	MAR-MAY	JAN-DEC	JUN-SEP
	Pink salmon (humpy)				X	X	X	X	X	X	X	X	X	X	X	X	AUG-SEP	SEP-MAR	MAR-MAY	MAY-JUN	JUN-SEP

INVERTEBRATE:																					
RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
39	Red king crab				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUL	-	-	JAN-DEC	JAN-DEC
	Tanner crab				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	JAN-DEC	JAN-DEC
	Weathervane scallop				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	MAY-AUG	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Molting	Pupping
40	Dall's porpoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Fin whale		E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Gray whale							X	X	X							-	-	-	-
	Harbor porpoise				X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-AUG	-	-
	Humpback whale		E	E							X	X	X				-	-	-	-
	Killer whale				X	X	X	X	X	X	X	X	X	X	X	X	-	SEP-DEC	-	-
41	Sea otter				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC
97	Sea otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC
268	Seals			100S				X	X	X	X	X	X	X			-	-	-	MAY-JUL
269	Seals			<10				X	X	X	X	X	X	X			-	-	-	MAY-JUL
270	Seals			10S				X	X	X	X	X	X	X			-	-	-	MAY-JUL
272	Steller (Northern) sea lion	C	E	46				X	X	X	X	X					-	-	-	-
273	Steller (Northern) sea lion	C	E	13				X	X	X	X	X					-	-	-	-

HUMAN USE RESOURCES:

CRITICAL HABITAT:														
HUN#	Name	Owner					Contact					Phone		
16	STELLER SEA LION CRITICAL HABITAT	NMFS					NMFS					907/586-7858		

WILDLIFE REFUGE:														
HUN#	Name	Owner					Contact					Phone		
24	ALASKA MARITIME NWR	US FISH & WILDLIFE SERVICE					REFUGE MANAGER					907/246-3339		
25	ALASKA PENINSULA NWR	US FISH & WILDLIFE SERVICE					REFUGE MANAGER					907/246-3339		

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.