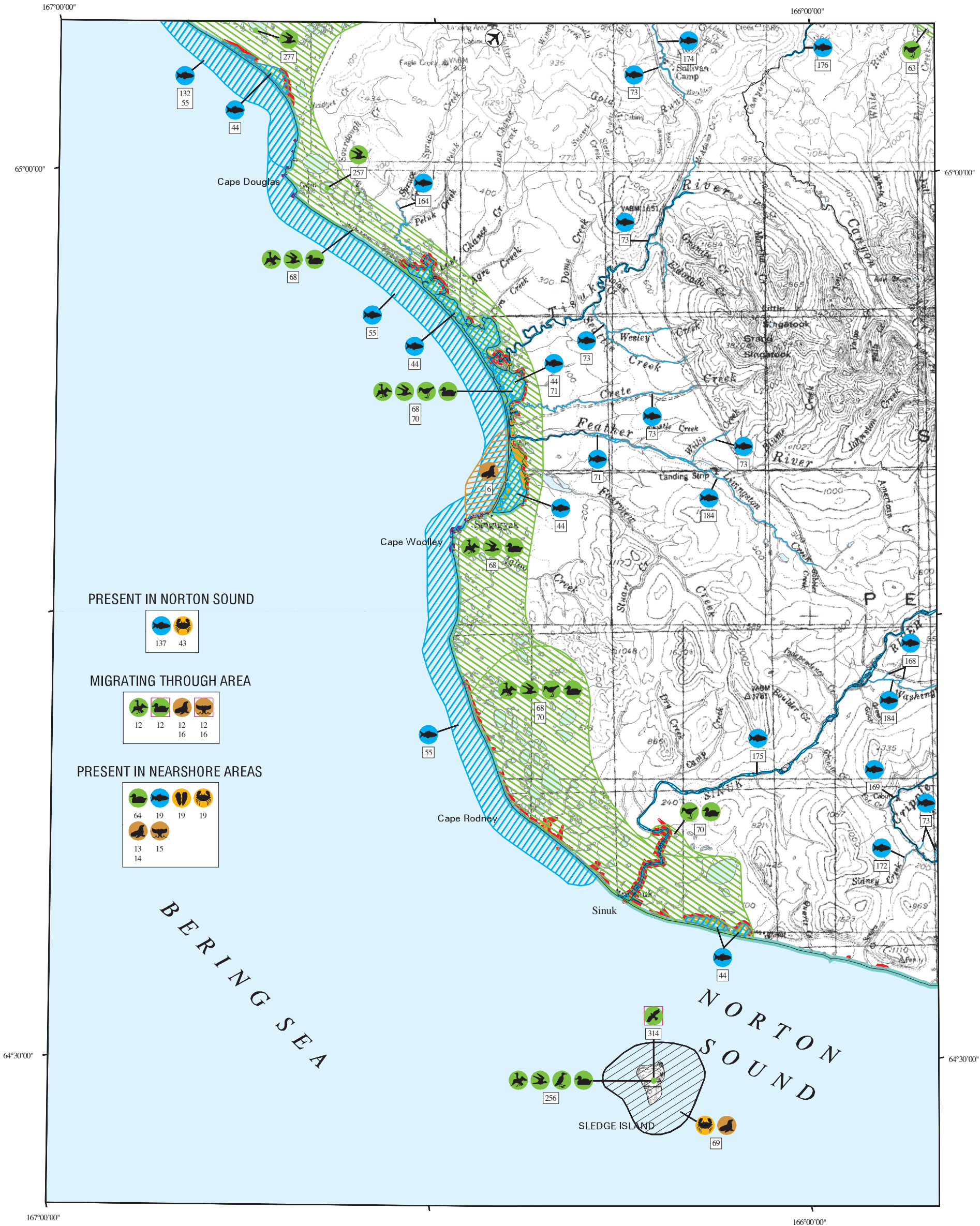
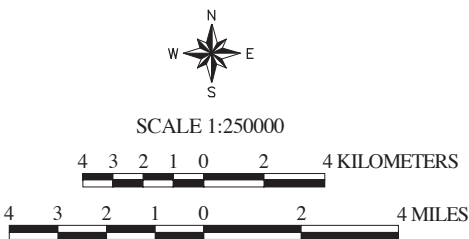


ENVIRONMENTAL SENSITIVITY INDEX MAP



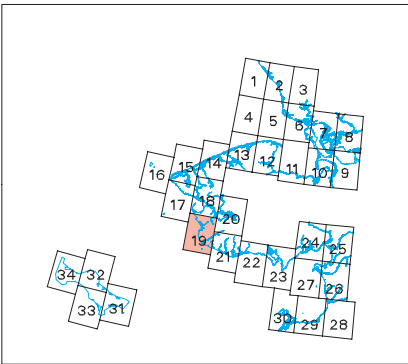
SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY SHORES
- 1B EXPOSED, SOLID MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK, MUD, OR CLAY
- 2B EXPOSED SCARPS AND STEEP SLOPES IN CLAY
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 3B SCARPS AND STEEP SLOPES IN SAND
- 3C TUNDRA CLIFFS
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES AND SHELTERED SCARPS IN MUD AND CLAY
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 8C SHELTERED RIPRAP
- 8E PEAT SHORELINES
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED, VEGETATED LOW BANKS
- 10A SALT- AND BRACKISH-WATER MARSHES
- 10D SCRUB-SHRUB WETLANDS
- 10E INUNDATED, LOW-LYING TUNDRA



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NW ARCTIC, AK - ESIMAP 19

BIOLOGICAL RESOURCES:

BIRD:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Pre-nest | Nesting | Post-nest |
|------|-------------------------|-----|-----|---------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|-----------|
| 12 | Common eider | | | 1000s | | | X | X | X | X | X | X | X | X | | | - | - | - |
| | King eider | | | 1000s | | | X | X | X | X | X | X | X | X | | | - | - | - |
| | Long-tailed duck | | | 1000s | | | X | X | X | X | X | X | X | X | | | - | - | - |
| | Red-throated loon | | | HIGH | | | X | X | X | X | X | X | X | X | | | - | - | - |
| | Spectacled eider | S/F | C/T | 1000s | | | X | X | X | X | X | X | X | X | | | - | - | - |
| | Steller's eider | S/F | C/T | 1000s | | | X | X | X | X | X | X | X | X | | | - | - | - |
| 63 | Dunlin | | | UNKNOWN | | | | | X | X | X | | | | | | MAY-JUN | JUN-JUL | - |
| | Dunlin | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| | Long-billed dowitcher | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | JUN-JUL | - |
| | Long-billed dowitcher | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| | Red-necked phalarope | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | JUN-JUL | - |
| | Red-necked phalarope | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| | Semipalmated sandpiper | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | JUN-JUL | - |
| | Semipalmated sandpiper | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| | Western sandpiper | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | JUN-JUL | - |
| | Western sandpiper | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| 64 | Canada goose | | | 1000s | | | | | | | | X | X | | | | - | - | AUG-SEP |
| 68 | Arctic tern | | | | | | | X | X | X | X | | | | | | MAY-JUN | MAY-AUG | JUL-AUG |
| | Black scoter | | | | | | | X | X | X | X | X | X | | | | MAY-JUN | JUN-SEP | JUN-OCT |
| | Brant | | | | | | | X | X | X | | | | | | | MAY-JUL | - | - |
| | Common eider | | | | | | | X | X | X | X | X | | | | | MAY-JUN | JUN-JUL | JUL-SEP |
| | Greater scaup | | | | | | | X | X | X | X | X | | | | | MAY-JUN | MAY-SEP | JUN-SEP |
| | Long-tailed duck | | | | | | X | X | X | X | X | X | | | | | APR-JUN | MAY-AUG | JUN-SEP |
| | Northern pintail | | | | | | | X | X | X | X | X | | | | | MAY-MAY | MAY-AUG | JUN-SEP |
| | Pacific loon | | | | | | | X | X | X | X | X | | | | | MAY-JUN | MAY-SEP | AUG-SEP |
| | Red-breasted merganser | | | | | | | X | X | X | X | X | X | | | | MAY-JUN | JUN-OCT | JUL-OCT |
| | Red-throated loon | | | | | | | X | X | X | X | X | | | | | MAY-JUN | MAY-AUG | AUG-SEP |
| | Yellow-billed loon | | | | | | | X | X | X | X | X | X | | | | MAY-JUN | JUN-OCT | SEP-OCT |
| 70 | Black-bellied plover | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | MAY-JUL | - |
| | Black-bellied plover | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| | Brant | | | | | | | X | X | X | | | | | | | MAY-JUL | - | - |
| | Dunlin | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | MAY-JUL | - |
| | Dunlin | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| | Semipalmated sandpiper | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | MAY-JUL | - |
| | Semipalmated sandpiper | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| | Snow goose | | | 100s | | | | | | | | | X | X | | | - | - | - |
| | Western sandpiper | | | UNKNOWN | | | | X | X | X | | | | | | | MAY-JUN | MAY-JUL | - |
| | Western sandpiper | | | 1000s | | | | | | | X | X | X | | | | - | - | JUL-SEP |
| 256 | Black-legged kittiwake | | | 1300 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Common eider | | | 4 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Common murre | | | 2540 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Glaucous gull | | | 12 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Horned puffin | | | 160 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Parakeet auklet | | | 85 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Pelagic cormorant | | | 300 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Pigeon guillemot | | | 4 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Thick-billed murre | | | 360 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| | Tufted puffin | | | 13 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| 257 | Glaucous gull | | | 160 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| 277 | Glaucous gull | | | 70 | | | X | X | X | X | X | X | X | | | | APR-MAY | JUN-JUL | AUG-OCT |
| 314 | Arctic peregrine falcon | S | C | | | | X | X | X | X | X | X | | | | | - | APR-SEP | - |

FISH:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|----------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|
| 19 | Chinook salmon | | | | | | | | | X | X | X | | | | | - | - | - | MAY-JUL | JUN-JUL |
| | Chum salmon (dog) | | | | | | | | | X | X | X | X | | | | - | - | - | MAY-JUL | JUN-AUG |
| | Coho salmon (silver) | | | | | | | | | X | X | X | X | | | | - | - | - | MAY-JUL | AUG-AUG |
| | Dolly varden | | | | | | | | | X | X | X | X | X | X | | - | - | - | MAY-JUL | AUG-OCT |
| | Pink salmon (humpy) | | | | | | | | | X | X | X | | | | | - | - | MAY-JUL | MAY-JUL | JUN-JUL |
| | Rainbow smelt | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | JAN-DEC |
| | Saffron cod | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | JAN-DEC |
| | Starry flounder | | | | | | | | | X | X | X | | | | | - | - | - | JUN-AUG | JUN-AUG |
| 44 | Rainbow smelt | | | | | | | | | | | | X | X | X | | - | - | - | - | SEP-NOV |
| | Saffron cod | | | | | | | | | | | | X | X | X | | - | - | - | - | SEP-NOV |
| 55 | Capelin | | | | | | | | | X | X | X | | | | | JUN-JUN | JUN-JUL | JUN-AUG | - | JUN-AUG |
| 71 | Chinook salmon | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUL | JAN-DEC | JUL-AUG |
| | Chum salmon (dog) | | | | X | X | X | X | X | | X | X | X | X | X | X | JUL-SEP | JUL-DEC | DEC-MAY | MAY-MAY | JUL-SEP |
| | Coho salmon (silver) | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-SEP | AUG-DEC | DEC-JUN | JAN-DEC | AUG-SEP |
| | Dolly varden | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT | AUG-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| | Pink salmon (humpy) | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUN | MAY-JUN | JUL-AUG |
| 73 | Dolly varden | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT | AUG-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| 132 | Whitefish | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | JAN-DEC |
| 137 | Pacific halibut | | | | | | | | | X | X | X | X | | | | - | - | - | - | JUL-OCT |
| 164 | Pink salmon (humpy) | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUN | MAY-JUN | JUL-AUG |
| 168 | Coho salmon (silver) | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-SEP | AUG-DEC | DEC-JUN | JAN-DEC | AUG-SEP |
| 169 | Chum salmon (dog) | | | | X | X | X | X | X | | X | X | X | X | X | X | JUL-SEP | JUL-DEC | DEC-MAY | MAY-MAY | JUL-SEP |
| | Coho salmon (silver) | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-SEP | AUG-DEC | DEC-JUN | JAN-DEC | AUG-SEP |
| | Dolly varden | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT | AUG-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| | Pink salmon (humpy) | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUN | MAY-JUN | JUL-AUG |
| | Whitefish | | | | X | X | X | X | X | X | X | X | X | X | X | X | SEP-OCT | SEP-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| 172 | Coho salmon (silver) | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-SEP | AUG-DEC | DEC-JUN | JAN-DEC | AUG-SEP |
| | Pink salmon (humpy) | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUN | MAY-JUN | JUL-AUG |
| 174 | Dolly varden | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT | AUG-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| | Pink salmon (humpy) | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUN | MAY-JUN | JUL-AUG |
| 175 | Chinook salmon | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUL | JAN-DEC | JUL-AUG |
| | Chum salmon (dog) | | | | X | X | X | X | | X | X | X | X | X | X | X | JUL-SEP | JUL-DEC | DEC-MAY | MAY-MAY | JUL-SEP |
| | Coho salmon (silver) | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-SEP | AUG-DEC | DEC-JUN | JAN-DEC | AUG-SEP |
| | Dolly varden | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT | AUG-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| | Pink salmon (humpy) | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG | JUL-DEC | DEC-JUN | MAY-JUN | JUL-AUG |
| | Sockeye salmon (red) | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUL-SEP | JUL-DEC | DEC-AUG | JAN-DEC | JUL-SEP |
| | Whitefish | | | | X | X | X | X | X | X | X | X | X | X | X | X | SEP-OCT | SEP-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| 176 | Whitefish | | | | X | X | X | X | X | X | X | X | X | X | X | X | SEP-OCT | SEP-DEC | DEC-JUN | JAN-DEC | JAN-DEC |
| 184 | Coho salmon (silver) | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-SEP | AUG-DEC | DEC-JUN | JAN-DEC | AUG-SEP |
| | Dolly varden | | | | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT | AUG-DEC | DEC-JUN | JAN-DEC | JAN-DEC |

NW ARCTIC, AK - ESIMAP 19 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawn/Mate | Eggs | Larvae | Juveniles | Adults |
|------|------------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|------------|---------|---------|-----------|---------|
| 19 | Alaska razor clam | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | - |
| | Butter clam | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | - |
| | Crenulate astarte | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | - |
| | Helmet crab | | | | X | X | X | X | | X | X | | | | X | X | - | - | - | - | - |
| | Pinkneck clam | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | - |
| | Siberia softshell clam | | | | X | X | X | X | X | X | X | X | X | | X | X | - | - | - | - | - |
| | Softshell clam | | | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | - | - |
| 43 | Red king crab | | | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | FEB-APR | JAN-DEC | FEB-JUN | JAN-DEC | JAN-DEC |
| 69 | Blue king crab | | | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | FEB-APR | JAN-DEC | FEB-JUN | JAN-DEC | JAN-DEC |

MARINE MAMMAL:

| RAR# | Species | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Mating | Calving | Pupping | Molting |
|------|---------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|--------|---------|---------|---------|
| 6 | Spotted seal | | | HIGH | | | | | | X | X | X | X | X | X | | - | - | - | - |
| 12 | Bearded seal | | | | | | X | X | X | | | | | | | | - | - | - | - |
| | Bowhead whale | S/F | C/E | | X | X | X | | | | | X | X | X | | | - | - | - | - |
| | Gray whale | | | | | | X | X | X | X | X | X | X | X | | | - | - | - | - |
| | Walrus | | | | | | X | X | | | | X | X | | | | - | - | - | - |
| 13 | Ringed seal | | | | X | X | X | X | X | X | | | | X | X | X | - | - | MAR-MAY | MAR-JUN |
| 14 | Spotted seal | | | | | | | | | X | X | X | X | X | X | | - | - | - | - |
| 15 | Beluga whale | | | | | | | | | X | X | X | X | X | | | - | JUN-AUG | - | - |
| 16 | Beluga whale | | | | X | X | X | X | | | | X | X | X | | | - | - | - | - |
| | Ringed seal | | | | | | X | X | X | | | | | | | | - | - | - | - |
| 69 | Walrus | | | | | | X | X | | | | | X | X | | | - | - | - | - |

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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.