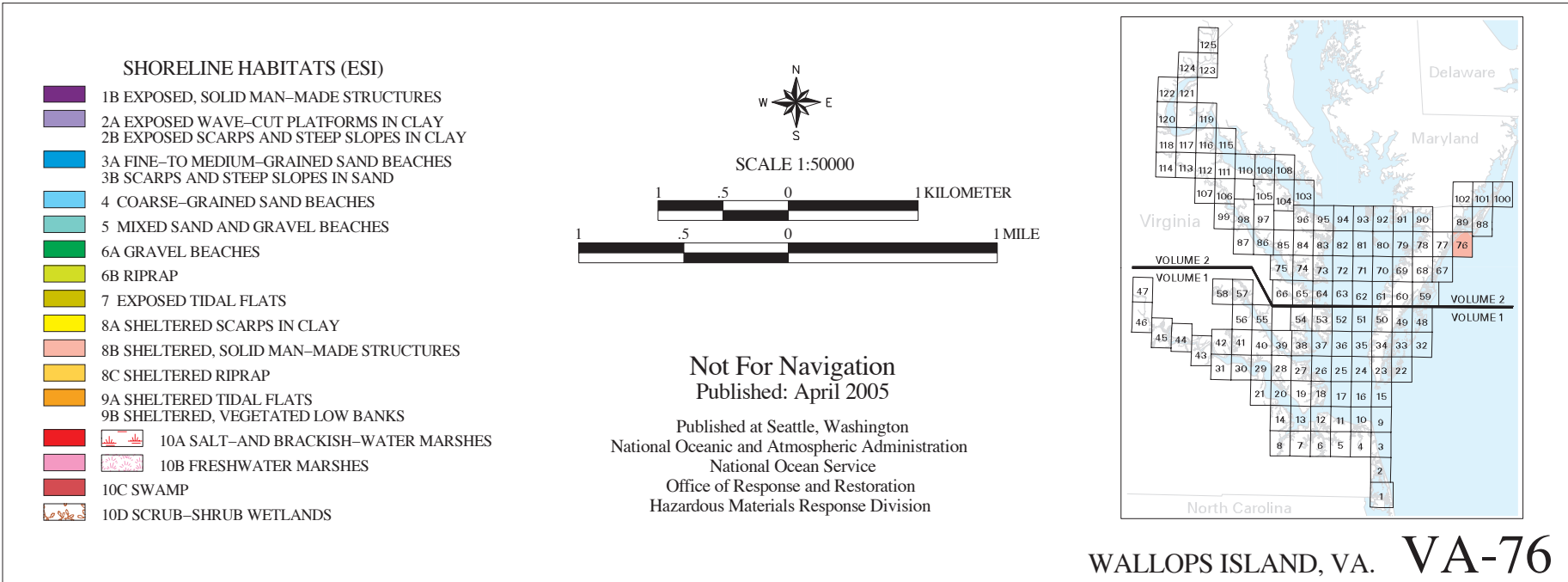
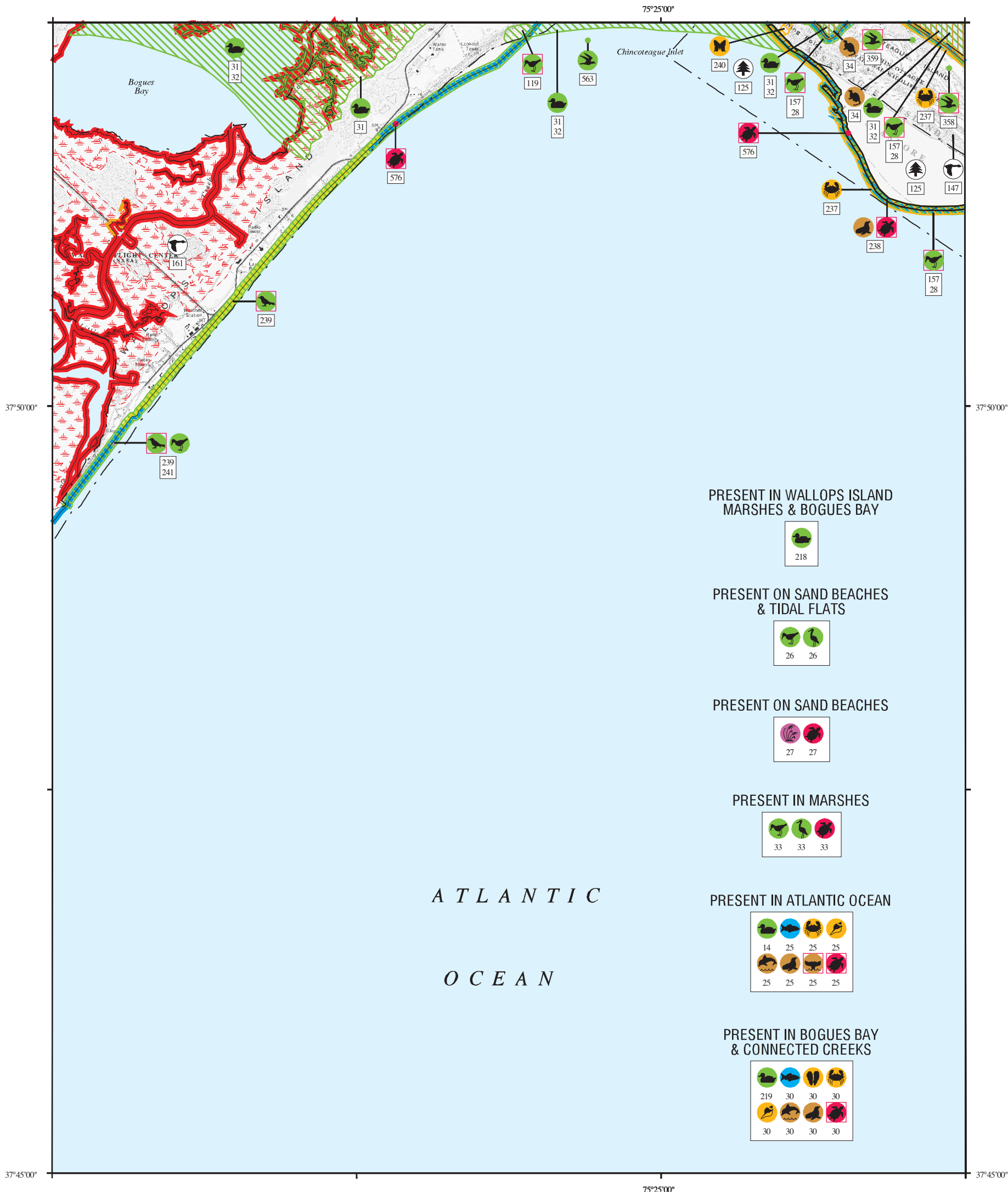


ENVIRONMENTAL SENSITIVITY INDEX MAP



Virginia: ESIMAP 76

BIOLOGICAL RESOURCES:

BIRD:

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Nesting | Migrating | Molting |
|------|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---------|-----------|---------|
| 14 | Black scoter | HIGH | X | X | X | X | | | | | | | X | X | - | - | - |
| | Surf scoter | | X | X | X | X | | | | | | | X | X | - | - | - |
| | White-winged scoter | | X | X | X | X | | | | | | | X | X | - | - | - |
| 26 | American woodcock | | X | X | | | | | | | | X | X | X | - | - | - |
| | Black-bellied plover | | | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Dunlin | | X | X | X | X | X | | | X | X | X | X | X | - | - | - |
| | Greater yellowlegs | | | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Killdeer | | | | | | X | X | X | | | | | | - | - | - |
| | Least sandpiper | | | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Lesser yellowlegs | | | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Pectoral sandpiper | | | | | | X | X | X | X | X | X | X | X | - | - | - |
| | Red knot | | | X | X | X | X | X | X | | | | | | - | - | - |
| | Ruddy turnstone | | | X | X | X | X | X | | | | | | | - | - | - |
| | Sanderling | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Semipalmated plover | | | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Semipalmated sandpiper | | | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Short-billed dowitcher | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Stilt sandpiper | | | | | | X | X | X | X | X | X | X | X | - | - | - |
| | Western sandpiper | | | | | | X | X | X | X | X | X | X | X | - | - | - |
| | Whimbrel | | | X | X | X | X | X | X | | | | | | - | - | - |
| | White-rumped sandpiper | | | X | X | X | | | | | | | | | - | - | - |
| | Willet | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| 28 | Piping plover | T T HIGH | | X | X | X | X | X | X | X | | | | | APR-SEP | - | - |
| 31 | American black duck | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | MAR-JUL | - | - |
| | American wigeon | MODERATE | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Brant | HIGH | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Canada goose | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | APR-JUN | - | - |
| | Gadwall | MODERATE | X | X | X | X | X | X | X | X | X | X | X | X | APR-JUN | - | - |
| | Green-winged teal | MODERATE | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Mallard | MODERATE | X | X | X | X | X | X | X | X | X | X | X | X | MAY-JUL | - | - |
| | Northern pintail | MODERATE | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Northern shoveler | | X | X | X | X | | | | | X | X | X | | - | - | - |
| 32 | Snow goose | HIGH | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Bufflehead | HIGH | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Common goldeneye | | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Mergansers | HIGH | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Ruddy duck | | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Scaup | | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Tundra swan | MODERATE | X | X | X | X | | | | | X | X | X | | - | - | - |
| 33 | Clapper rail | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | APR-AUG | - | - |
| | King rail | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - |
| | Sora | | | X | X | X | | | | | X | X | X | | - | - | - |
| | Virginia rail | | X | X | X | X | X | X | X | X | X | X | X | X | APR-JUN | - | - |
| | Whimbrel | HIGH | | X | X | X | | | | | X | X | X | | - | - | - |
| | Willet | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | APR-SEP | - | - |
| 119 | Piping plover | T T | | X | X | X | X | X | X | X | | | | | APR-SEP | - | - |
| 157 | American oystercatcher | 12 ADULTS | | X | X | X | X | X | X | X | | | | | MAR-JUL | - | - |
| 218 | American black duck | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | MAR-JUL | - | - |
| | American wigeon | | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Brant | HIGH | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Canada goose | MODERATE | X | X | X | X | X | X | X | X | X | X | X | X | APR-JUN | - | - |
| | Gadwall | | X | X | X | X | X | X | X | X | X | X | X | X | APR-JUN | - | - |
| | Green-winged teal | | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Mallard | | X | X | X | X | X | X | X | X | X | X | X | X | MAY-JUL | - | - |
| | Northern pintail | | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Snow goose | | X | X | X | X | | | | | X | X | X | | - | - | - |
| 219 | Bufflehead | | X | X | X | X | | | | | X | X | X | | - | - | - |
| | Mergansers | | X | X | X | X | | | | | X | X | X | | - | - | - |
| 239 | Saltmarsh sharp-tailed sparrow | C | | X | X | X | | | | | | | | | - | - | - |
| 241 | American oystercatcher | 3 ADULTS | | X | X | X | X | X | X | X | | | | | MAR-JUL | - | - |
| 358 | Black skimmer | 2 ADULTS | | X | X | X | X | X | X | X | X | | | | MAY-JUL | - | - |
| | Least tern | 100 ADULTS | | X | X | X | X | X | X | X | | | | | MAY-JUL | - | - |
| 359 | Least tern | C 40 ADULTS | | X | X | X | X | X | X | X | | | | | MAY-JUL | - | - |
| 563 | Common tern | 110 ADULTS | | X | X | X | X | X | X | X | X | | | | MAY-JUL | - | - |

FISH:

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|-----------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|
| 25 | Atlantic croaker | | | | | X | X | X | X | X | X | X | X | X | - | - | - | AUG-DEC | MAY-NOV |
| | Atlantic mackerel | | | X | X | | | | | | | | | | - | - | - | - | MAR-APR |
| | Atlantic menhaden | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | MAY-OCT |
| | Black drum | | | X | X | X | X | X | X | X | | | | | - | - | - | - | APR-OCT |
| | Black sea bass | | | X | X | X | X | X | X | | | | | | JUN-OCT | - | - | APR-OCT | APR-OCT |
| | Bluefish | | | X | X | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | APR-NOV |
| | Butterfish | | | X | X | X | X | X | X | X | X | | | | - | - | - | JUL-NOV | MAR-NOV |
| | Crevalle jack | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | - |
| | Northern kingfish | | | X | X | X | X | X | X | X | | | | | MAY-AUG | - | - | - | APR-OCT |
| | Northern searobin | | | X | X | X | X | X | X | X | | | | | - | - | - | - | MAR-OCT |
| | Pollock | | X | X | X | X | | | | | | | X | | - | - | - | - | DEC-APR |
| | Red drum | | | | X | X | X | X | X | X | X | | | | JUL-NOV | - | - | - | MAY-NOV |
| | Red hake | | X | X | X | X | | | | | X | X | X | | - | - | - | FEB-MAY | FEB-MAY |
| | | | | | | | | | | | | | | | | - | - | - | SEP-NOV |
| | Sandbar shark | | | | | X | X | X | X | X | X | | | | - | - | - | MAY-OCT | MAY-OCT |
| | Scup (porgy) | | | X | X | X | X | X | X | X | | | | | - | - | - | JUN-OCT | MAR-OCT |
| | Silver hake | | X | X | X | X | | | | | X | X | X | | - | - | - | - | OCT-MAY |
| | Southern kingfish (whiting) | | | X | X | X | X | X | X | | | | | | - | - | - | - | APR-OCT |
| | Spanish mackerel | | | X | X | | | | | | | | | | - | - | - | - | APR-MAY |
| | Spiny dogfish | | X | X | X | X | | | | | | | X | X | - | - | - | - | NOV-APR |
| | Spot | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | DEC-APR | MAR-NOV | MAR-NOV |
| | Spotted hake | | | X | X | X | X | | | | X | X | X | | - | - | - | MAR-JUN | MAR-JUN |
| | | | | | | | | | | | | | | | | - | - | - | SEP-NOV |
| | Spotted seatrout | | | | X | X | X | X | X | X | X | X | | | MAY-JUL | - | - | APR-NOV | APR-NOV |
| | Summer flounder | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | OCT-MAY | - | APR-OCT |
| | Tautog | | X | X | X | X | X | X | X | X | X | X | X | X | APR-AUG | - | - | - | JAN-DEC |
| | Weakfish | | | X | X | X | X | X | X | X | X | | | | APR-AUG | - | MAY-AUG | APR-NOV | APR-NOV |
| 30 | Alewife | | X | X | X | X | X | | | | | | | | - | - | - | - | FEB-JUN |
| | American eel | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | - |
| | American shad | | X | X | X | X | | | | | | | | | - | - | - | - | FEB-JUN |
| | Atlantic croaker | | | X | X | X | X | X | X | X | X | | | | - | - | - | MAY-DEC | - |
| | Atlantic herring | | X | X | X | X | | | | | | | | | - | - | - | - | FEB-JUN |
| | Atlantic mackerel | | | X | X | | | | | | | | | | - | - | - | - | MAR-APR |
| | Atlantic menhaden | | | | X | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | MAY-OCT |
| | Bay anchovy | | X | X | X | X | X | X | X | X | X | X | X | X | APR-SEP | - | - | JAN-DEC | JAN-DEC |
| | Black drum | | | X | X | X | X | X | X | | | | | | - | - | - | - | APR-OCT |
| | Black sea bass | | | X | X | X | X | X | | | | | | | - | - | - | APR-SEP | APR-SEP |
| | Blueback herring | | X | X | X | X | X | X | X | X | | | | | - | - | FEB-JUN | FEB-OCT | FEB-JUN |
| | Bluefish | | | X | X | X | X | X | X | | | | | | - | - | - | MAY-OCT | MAY-OCT |
| | Crevalle jack | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | - |
| | Gobies | | X | X | X | X | X | X | X | X | X | X | X | X | APR-SEP | APR-SEP | APR-OCT | JAN-DEC | JAN-DEC |

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.

Virginia: ESIMAP 76 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH: (cont.)

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|-------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|
| | | | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| 30 | Hickory shad | | | X | X | X | X | X | | | | | | | - | - | - | - | FEB-JUN |
| | Hogchoker | | X | X | X | X | X | X | X | X | X | X | X | X | MAY-SEP | MAY-SEP | MAY-SEP | JAN-DEC | JAN-DEC |
| | Killifish | | X | X | X | X | X | X | X | X | X | X | X | X | MAR-SEP | - | - | JAN-DEC | JAN-DEC |
| | Minnows | | X | X | X | X | X | X | X | X | X | X | X | X | APR-AUG | - | - | JAN-DEC | JAN-DEC |
| | Mummichog | | X | X | X | X | X | X | X | X | X | X | X | X | APR-AUG | - | - | JAN-DEC | JAN-DEC |
| | Northern pipefish | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | JAN-DEC |
| | Northern searobin | | | | | | | X | X | X | | | | | - | - | - | JUN-AUG | JUN-AUG |
| | Pollock | | X | X | X | X | | | | | | | | X | - | - | - | - | DEC-APR |
| | Red drum | | | | | | X | X | X | X | X | X | X | | JUL-NOV | - | - | AUG-SEP | MAY-NOV |
| | Red hake | | X | X | X | X | | | | X | X | X | | | - | - | - | FEB-MAY | FEB-MAY |
| | | | | | | | | | | | | | | | | | | SEP-NOV | |
| | Sandbar shark | | | | | | X | X | X | X | X | X | | | - | - | - | MAY-OCT | MAY-OCT |
| | Scup (porgy) | | | X | X | X | X | X | X | X | X | | | | - | - | - | JUN-OCT | MAR-OCT |
| | Silver hake | | X | X | X | X | | | | | X | X | X | | - | - | - | - | OCT-MAY |
| | Silver perch | | X | X | X | X | X | X | X | X | X | X | X | X | APR-MAY | APR-MAY | APR-JUN | JAN-DEC | JAN-DEC |
| | Silversides | | X | X | X | X | X | X | X | X | X | X | X | X | MAR-JUL | MAR-JUL | APR-SEP | JAN-DEC | JAN-DEC |
| | Spanish mackerel | | | X | X | | | | | | | | | | - | - | - | - | APR-MAY |
| | Spot | | | X | X | X | X | X | X | X | | | | | - | - | - | APR-OCT | JUL-SEP |
| | Spotted hake | | X | X | X | X | | | | | X | X | X | | - | - | - | OCT-APR | - |
| | Spotted seatrout | | | X | X | X | X | X | X | X | X | | | | MAY-JUL | - | - | APR-NOV | APR-NOV |
| | Striped anchovy | | | X | X | X | X | X | X | X | X | | | | APR-SEP | - | - | APR-NOV | APR-NOV |
| | Summer flounder | | | X | X | X | X | X | X | X | X | | | | - | - | - | APR-NOV | APR-NOV |
| | Tautog | | X | X | X | | | | | | X | X | X | | - | - | - | - | OCT-APR |
| | Weakfish | | | X | X | X | X | X | X | X | X | | | | APR-AUG | - | - | MAR-OCT | APR-OCT |
| | White hake | | | X | X | X | | | | X | X | X | | | - | - | - | - | MAR-MAY |
| | | | | | | | | | | | | | | | | | | SEP-NOV | |
| | White perch | | X | X | X | X | X | X | X | X | X | X | X | X | APR-JUN | APR-JUN | APR-JUN | JAN-DEC | JAN-DEC |
| | Winter flounder | | X | X | X | X | X | X | | | | | X | | - | - | - | DEC-JUL | DEC-MAY |

HABITAT:

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D |
|------|----------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | - | - | - | - | - | - | - | - | - | - | - | - |
| 27 | Maritime dune scrub | | X | X | X | X | X | X | X | X | X | X | X | X |
| | Native coastal strand vegetation | | X | X | X | X | X | X | X | X | X | X | X | X |
| | Sea-beach knotweed | | X | X | X | X | X | X | X | X | X | X | X | X |
| | Southern beach spurge | | X | X | X | X | X | X | X | X | X | X | X | X |

INVERTEBRATE:

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|-----------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|
| | | | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| 25 | Blue crab | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | MAY-NOV | JAN-DEC | JAN-DEC |
| | Channeled whelk | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | JAN-DEC |
| 30 | Blue crab | | X | X | X | X | X | X | X | X | X | X | X | X | - | MAY-SEP | MAY-NOV | JAN-DEC | JAN-DEC |
| | Channeled whelk | | X | X | X | X | X | X | X | X | X | X | X | X | - | - | - | JAN-DEC | JAN-DEC |
| | Northern quahog (hard clam) | | X | X | X | X | X | X | X | X | X | X | X | X | MAY-OCT | MAY-OCT | MAY-OCT | JAN-DEC | JAN-DEC |
| 237 | Horseshoe crab | | | X | X | X | | | | | | | | | APR-JUL | - | - | - | MAY-JUL |
| 240 | Spectral tiger beetle | | X | X | X | X | X | X | X | X | X | X | X | X | JUN-SEP | JUN-SEP | - | JAN-DEC | JUN-OCT |

MARINE MAMMAL:

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Mating | Calving | Pupping | Molting |
|------|--------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|--------|---------|---------|---------|
| | | | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| 25 | Bottlenose dolphin | | | | | X | X | X | X | X | X | | | | - | - | - | - |
| | Common dolphin | | | | | X | X | X | X | X | | | | | - | - | - | - |
| | Harbor porpoise | | X | X | X | X | X | | | | | | X | | - | - | - | - |
| | Harbor seal | | X | X | | | | | | | X | X | X | | - | - | - | - |
| | Humpback whale | E E | X | X | X | X | X | X | X | X | X | X | X | X | - | JAN-DEC | - | - |
| 30 | Bottlenose dolphin | | | | | X | X | X | X | X | X | | | | - | - | - | - |
| | Harbor porpoise | | X | X | X | X | | | | | | | X | | - | - | - | - |
| | Harbor seal | | X | X | | | | | | | | X | X | X | - | - | - | - |
| 238 | Harbor seal | | X | X | | | | | | | | X | X | X | - | - | - | - |

REPTILE:

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Nesting | Hatching | Internesting | Juveniles | Adults |
|------|--------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---------|----------|--------------|-----------|---------|
| | | | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| 25 | Green sea turtle | T T | | | | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | - |
| | Kemp's ridley sea turtle | E E | | | | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | MAY-NOV |
| | Leatherback sea turtle | E E | | | | X | X | X | X | X | | | | | - | - | - | - | MAY-NOV |
| | Loggerhead sea turtle | T T | | | | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | MAY-NOV |
| 27 | Diamondback terrapin | | X | X | X | X | X | X | X | X | X | | | | MAY-JUL | - | - | MAR-NOV | MAR-NOV |
| 30 | Green sea turtle | T T | | | | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | - |
| | Kemp's ridley sea turtle | E E | | | | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | MAY-NOV |
| | Leatherback sea turtle | E E | | | | X | X | X | X | X | X | | | | - | - | - | - | MAY-NOV |
| | Loggerhead sea turtle | T T | | | | X | X | X | X | X | X | | | | - | - | - | MAY-NOV | MAY-NOV |
| 33 | Diamondback terrapin | VERY HIGH | X | X | X | X | X | X | X | X | X | | | | - | - | - | MAR-NOV | MAR-NOV |
| 238 | Loggerhead sea turtle | T T | | | | X | X | X | X | X | X | | | | MAY-NOV | - | - | - | MAY-NOV |
| 576 | Loggerhead sea turtle | T T | | | | X | X | X | X | X | X | | | | MAY-NOV | - | - | - | MAY-NOV |

TERRESTRIAL MAMMAL:

| RAR# | Species | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D |
|------|----------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | - | - | - | - | - | - | - | - | - | - | - | - |
| 34 | Northern river otter | | X | X | X | X | X | X | X | X | X | X | X | X |

HUMAN USE RESOURCES:

NATIONAL PARK:

| HUN# | Name | Contact | Phone |
|------|-------------------------------------|-----------------------|--------------|
| 125 | ASSATEAGUE ISLAND NATIONAL SEASHORE | NATIONAL PARK SERVICE | 757/336-6577 |

WILDLIFE REFUGE:

| HUN# | Name | Contact | Phone |
|------|---|--------------------------------|--------------|
| 147 | CHINCOTEAGUE ISLAND NWR | U.S. FISH AND WILDLIFE SERVICE | 757/336-6122 |
| 161 | WALLOPS ISLAND NATIONAL WILDLIFE REFUGE | U.S. FISH AND WILDLIFE SERVICE | 757/336-6122 |