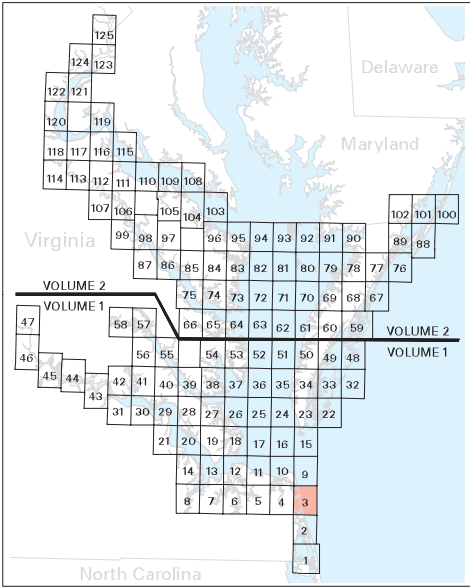
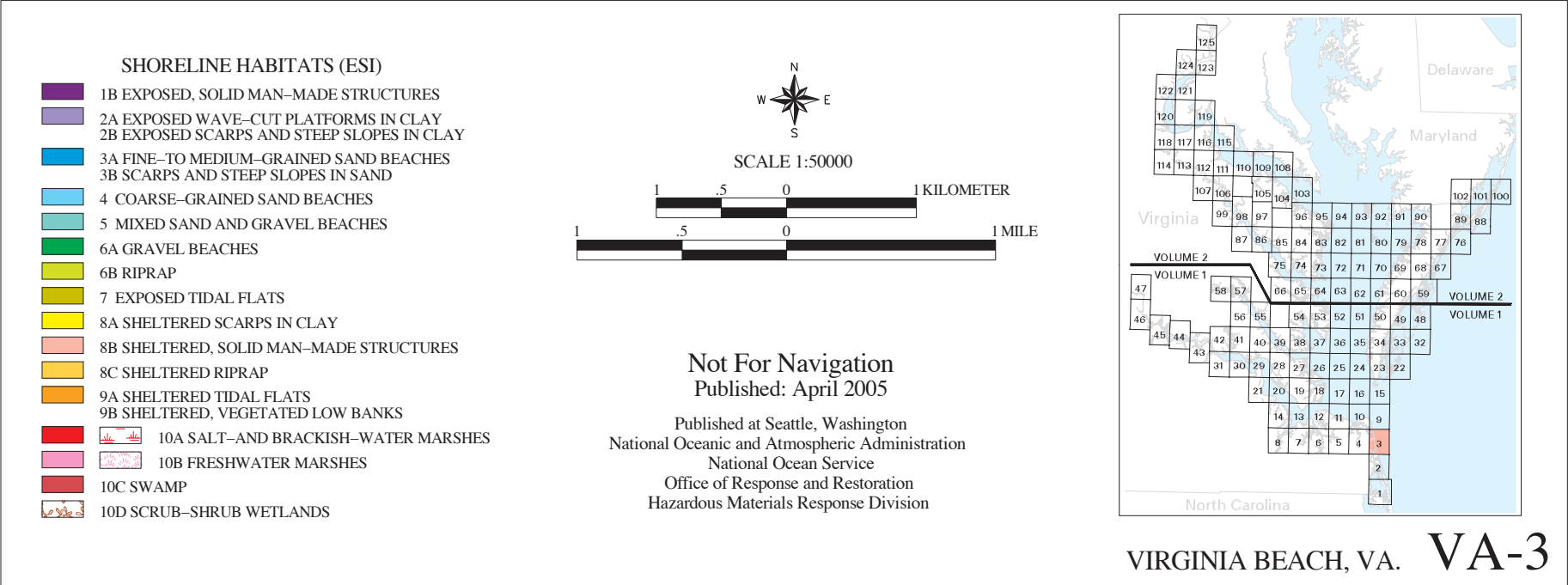
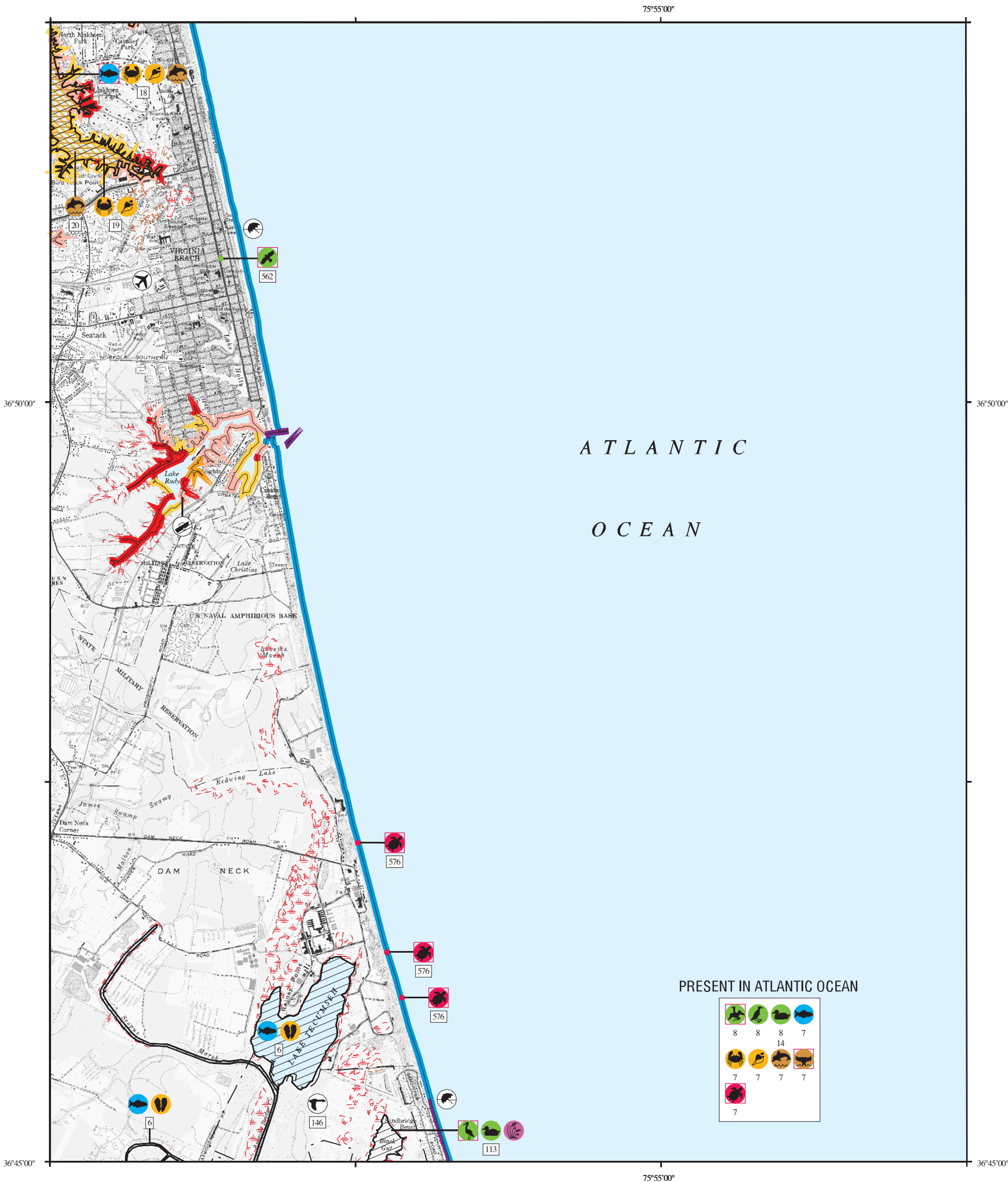


ENVIRONMENTAL SENSITIVITY INDEX MAP



Virginia: ESIMAP 3

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
8	Brown pelican	C			X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon		X	X	X								X	X	-	-	-
	Northern gannet	HIGH	X	X	X								X	X	-	-	-
	Red-breasted merganser	VERY HIGH	X	X	X								X	X	-	-	-
	Red-necked grebe			X	X										-	-	-
	Red-throated loon		X	X	X								X	X	-	-	-
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	-	-	-
113	American black duck	LOW	X	X	X	X	X				X	X	X	X	-	-	-
	Gadwall	LOW	X	X	X	X	X				X	X	X	X	-	-	-
	Great blue heron	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret	C LOW		X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Mallard	LOW	X	X	X	X	X				X	X	X	X	-	-	-
	Tundra swan	LOW	X	X	X	X	X				X	X	X	X	-	-	-
562	Peregrine falcon	T		X	X	X	X	X	X						MAR-AUG	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
6	Alewife		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	American eel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Atlantic menhaden		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Blueback herring		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Bowfin		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	-	JAN-DEC
	Brown bullhead		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	-	JAN-DEC
	Common carp		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-	JAN-DEC
	Spot		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Summer flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White perch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	APR-JUN	APR-JUN	JAN-DEC	JAN-DEC
	Yellow perch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	JAN-DEC	JAN-DEC
7	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	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	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	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				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
18	Alewife		X	X	X	X									-	-	-	-	FEB-JUN
	American eel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-DEC
	American shad		X	X	X	X	X				X	X			-	-	-	NOV-MAR	JAN-JUN
	Atlantic croaker				X	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	-	-	MAY-NOV	JAN-DEC	MAY-OCT
	Atlantic silverside		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Atlantic spadefish				X	X	X	X							-	-	-	AUG-OCT	AUG-NOV
	Atlantic sturgeon	C	X	X	X	X	X	X	X	X					-	-	-	-	JAN-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	X	X				APR-JUN	APR-JUN	APR-JUN	APR-NOV	APR-NOV
	Black sea bass			X	X	X	X	X	X						JUN-OCT	-	-	APR-OCT	APR-OCT
	Blueback herring		X	X	X	X	X				X	X			-	-	-	NOV-MAR	JAN-JUN
	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
	Clearnose skate			X	X	X	X	X	X						-	-	-	-	MAY-NOV
	Gobies		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-SEP	APR-OCT	JAN-DEC	JAN-DEC
	Harvestfish			X	X	X	X	X	X						-	-	-	JUL-OCT	APR-OCT
	Hickory shad		X	X	X	X	X				X	X			-	-	-	NOV-MAR	JAN-JUN
	Hogchoker		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Inland silverside		X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	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 kingfish			X	X	X	X	X	X						-	-	-	-	APR-OCT
	Northern pipefish		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Northern puffer			X	X	X	X	X	X						MAY-AUG	-	-	MAR-OCT	MAR-OCT
	Northern searobin			X	X	X	X	X	X	X					MAY-JUL	-	-	-	MAR-OCT
	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						-	-	-	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	-	-	JAN-DEC	JAN-DEC
	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				MAY-JUL	-	-	APR-NOV	APR-NOV
	Striped bass		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Striped killifish		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Summer flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAY	JAN-DEC	APR-OCT
	Tautog		X	X	X	X				X	X	X			-	-	-	-	OCT-APR
	Threadfin shad		X	X	X	X				X	X	X			-	-	-	-	FEB-MAY
																		SEP-NOV	
	Weakfish				X	X	X	X	X	X	X				APR-AUG	-	MAY-AUG	APR-NOV	APR-NOV

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
113	Rare plant		X	X	X	X	X	X	X	X	X	X	X	X

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 3 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
6	Brackishwater clam		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
7	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
18	Horseshoe crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Knobbed whelk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
19	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	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

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
7	Bottlenose dolphin						X	X	X	X	X	X	X		-	-	-	-
	Common dolphin						X	X	X	X	X	X			-	-	-	-
	Harbor porpoise		X	X	X	X	X							X	-	-	-	-
	Humpback whale	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-	-
18	Harbor porpoise		X	X	X	X								X	-	-	-	-
20	Bottlenose dolphin					X	X	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	Interesting	Juveniles	Adults
7	Green sea turtle	T T						X	X	X	X	X	X	X	-	-	-	MAY-NOV	-
	Kemp's ridley sea turtle	E E						X	X	X	X	X	X	X	-	-	-	MAY-NOV	MAY-NOV
	Leatherback sea turtle	E E						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV
	Loggerhead sea turtle	T T						X	X	X	X	X	X	X	-	-	-	MAY-NOV	MAY-NOV
576	Loggerhead sea turtle	T T						X	X	X	X	X	X	X	MAY-NOV	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
146	BACK BAY NATIONAL WILDLIFE REFUGE	U.S. FISH AND WILDLIFE SERVICE	757/721-2412