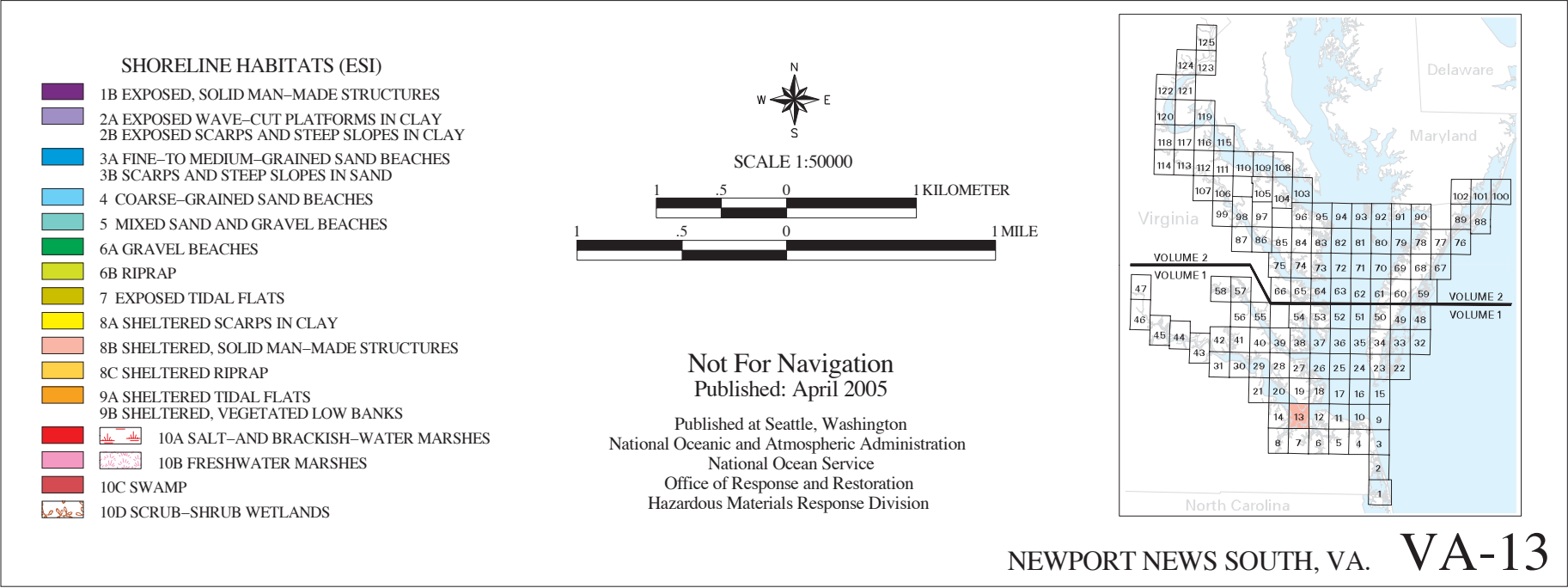
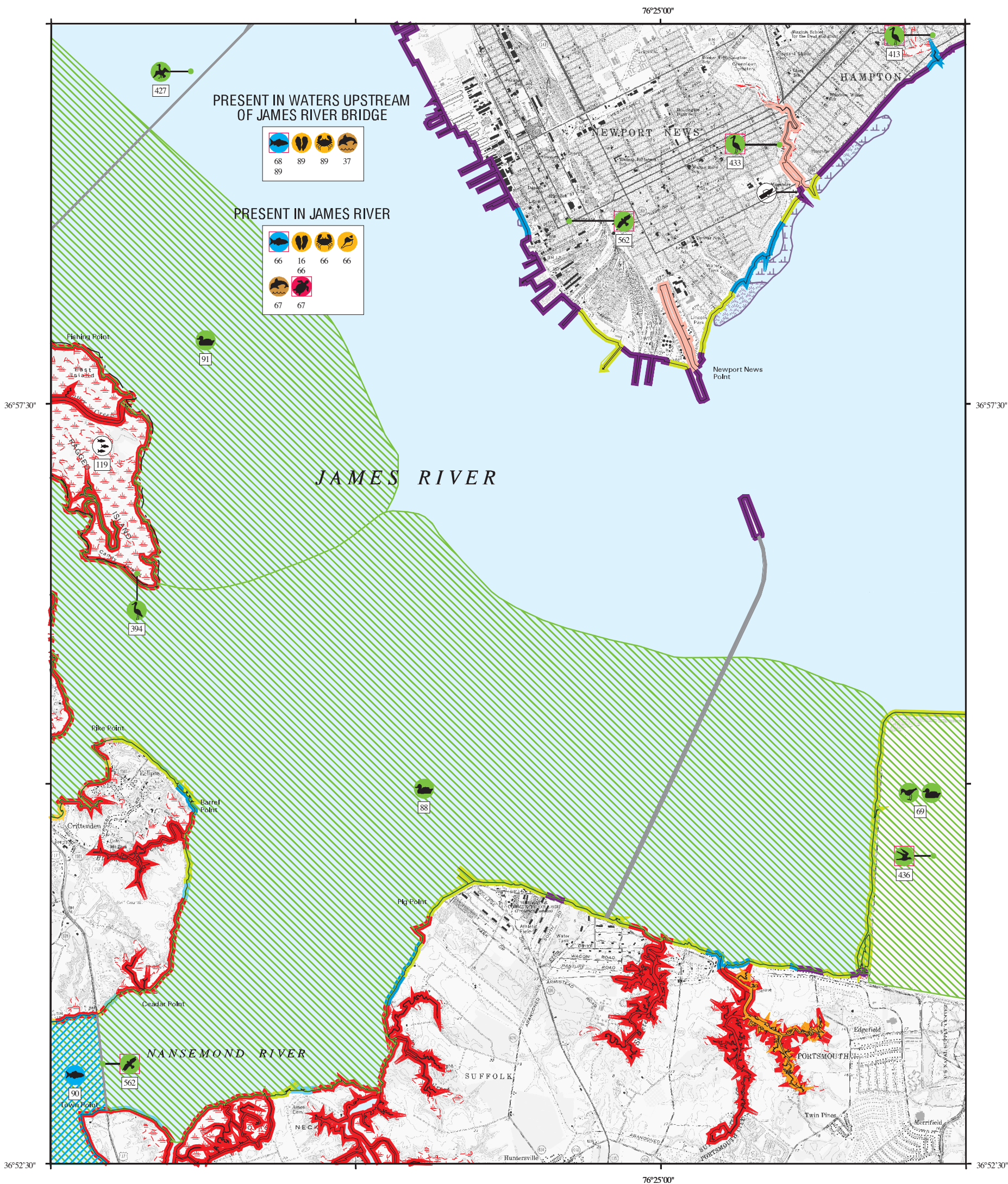


# ENVIRONMENTAL SENSITIVITY INDEX MAP



Virginia: ESIMAP 13

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
69	Dabbling ducks		X	X	X	X						X	X	X	-	-	-
	Green-winged teal		X	X	X	X						X	X	X	-	-	-
	Northern shoveler		X	X	X	X						X	X	X	-	-	-
	Shorebirds			X	X	X				X	X	X			-	-	-
88	American black duck	LOW	X	X	X	X						X	X	X	-	-	-
	Bufflehead	MODERATE	X	X	X	X						X	X	X	-	-	-
	Canada goose		X	X	X	X						X	X	X	-	-	-
	Canvasback	HIGH	X	X	X	X						X	X	X	-	-	-
	Common goldeneye		X	X	X	X						X	X	X	-	-	-
	Mergansers		X	X	X	X						X	X	X	-	-	-
	Ring-necked duck		X	X	X	X						X	X	X	-	-	-
	Ruddy duck	HIGH	X	X	X	X						X	X	X	-	-	-
	Scaup	MODERATE	X	X	X	X						X	X	X	-	-	-
	Scoters		X	X	X	X						X	X	X	-	-	-
91	Bufflehead	HIGH	X	X	X	X						X	X	X	-	-	-
	Canvasback	HIGH	X	X	X	X						X	X	X	-	-	-
	Common goldeneye		X	X	X	X						X	X	X	-	-	-
	Mergansers	MODERATE	X	X	X	X						X	X	X	-	-	-
	Redhead		X	X	X	X						X	X	X	-	-	-
	Ring-necked duck		X	X	X	X						X	X	X	-	-	-
	Ruddy duck	HIGH	X	X	X	X						X	X	X	-	-	-
	Scaup	MODERATE	X	X	X	X						X	X	X	-	-	-
394	Great blue heron	9 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
413	Yellow-crowned night-heron	C 3 NESTS		X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
427	Double-crested cormorant	154 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
433	Yellow-crowned night-heron	C 4 NESTS		X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
436	Least tern	C 10 NESTS		X	X	X	X	X	X	X					MAY-JUL	-	-
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
66	Alewife			X	X	X	X	X							-	-	-	-	FEB-JUN
	American eel			X	X	X	X								-	-	-	FEB-MAY	-
	American shad		X	X	X	X	X	X				X	X		-	-	-	NOV-MAR	JAN-JUN
	Atlantic croaker		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	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	X	X	X	X	-	-	-	JAN-DEC	APR-NOV
	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	X	X	X	APR-JUN	APR-JUN	APR-JUN	APR-NOV	APR-NOV
	Black sea bass			X	X	X	X	X							-	-	-	APR-AUG	-
	Blueback herring		X	X	X	X	X	X					X	X	-	-	-	NOV-MAR	JAN-JUN
	Bluefish			X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAY-NOV	APR-NOV
	Butterfish			X	X	X	X	X	X	X	X	X	X	X	-	-	-	JUL-NOV	MAR-NOV
	Clearnose skate			X	X	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	X					-	-	-	JUL-OCT	APR-OCT
	Hickory shad		X	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	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	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	X	X				-	-	-	JUN-OCT	MAR-OCT
	Silver hake		X	X	X	X	X				X	X	X		-	-	-	-	OCT-MAY
	Silver perch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spot		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	MAR-NOV	JAN-DEC
	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	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	-	-	-	JAN-DEC	JAN-DEC
	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	X	X	X	X	X	-	-	-	JAN-DEC	-
68	Alewife		X	X	X	X	X								-	-	-	-	FEB-JUN
	American shad		X	X	X	X	X								-	-	-	-	FEB-JUN
	Blueback herring		X	X	X	X	X								-	-	-	-	FEB-JUN
	Hickory shad		X	X	X	X									-	-	-	-	FEB-JUN
	Striped bass		X	X	X	X	X				X	X	X		-	-	-	-	OCT-JUN
89	American eel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	American shad		X	X	X	X	X	X	X	X					-	-	-	FEB-OCT	-
	Atlantic croaker		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Atlantic menhaden			X	X	X	X	X	X	X					-	-	-	MAY-NOV	-
	Atlantic silverside		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Atlantic sturgeon	C	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-NOV
	Bay anchovy		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Black sea bass			X	X	X	X								-	-	-	APR-AUG	-
	Hogchoker		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Mummichog		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	Silver perch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spot		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	APR-NOV	-
	Striped bass			X	X	X	X	X							-	-	-	MAY-OCT	-
	Summer flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Weakfish		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	-	-	-	JAN-DEC	JAN-DEC
90	Alewife		X	X	X	X									-	-	-	-	FEB-JUN
	American shad		X	X	X	X									-	-	-	-	FEB-JUN
	Blueback herring		X	X	X	X									-	-	-	-	FEB-JUN
	Hickory shad		X	X	X	X									-	-	-	-	FEB-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
16	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
66	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	MAY-SEP	MAY-NOV	JAN-DEC	JAN-DEC
	Eastern oyster		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-SEP	JUN-SEP	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 13 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
66	Knobbed whelk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
89	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-NOV	JAN-DEC	JAN-DEC
	Eastern oyster		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-SEP	JUN-SEP	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
37	Bottlenose dolphin							X	X	X	X	X	X	X	-	-	-	-
	Harbor porpoise		X	X	X	X	X							X	-	-	-	-
67	Bottlenose dolphin							X	X	X	X	X	X	X	-	-	-	-
	Harbor porpoise		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	Internesting	Juveniles	Adults
67	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	-
	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	-

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
119	RAGGED ISLAND WILDLIFE MANAGEMENT AREA	VDGIF	804/367-1000

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.