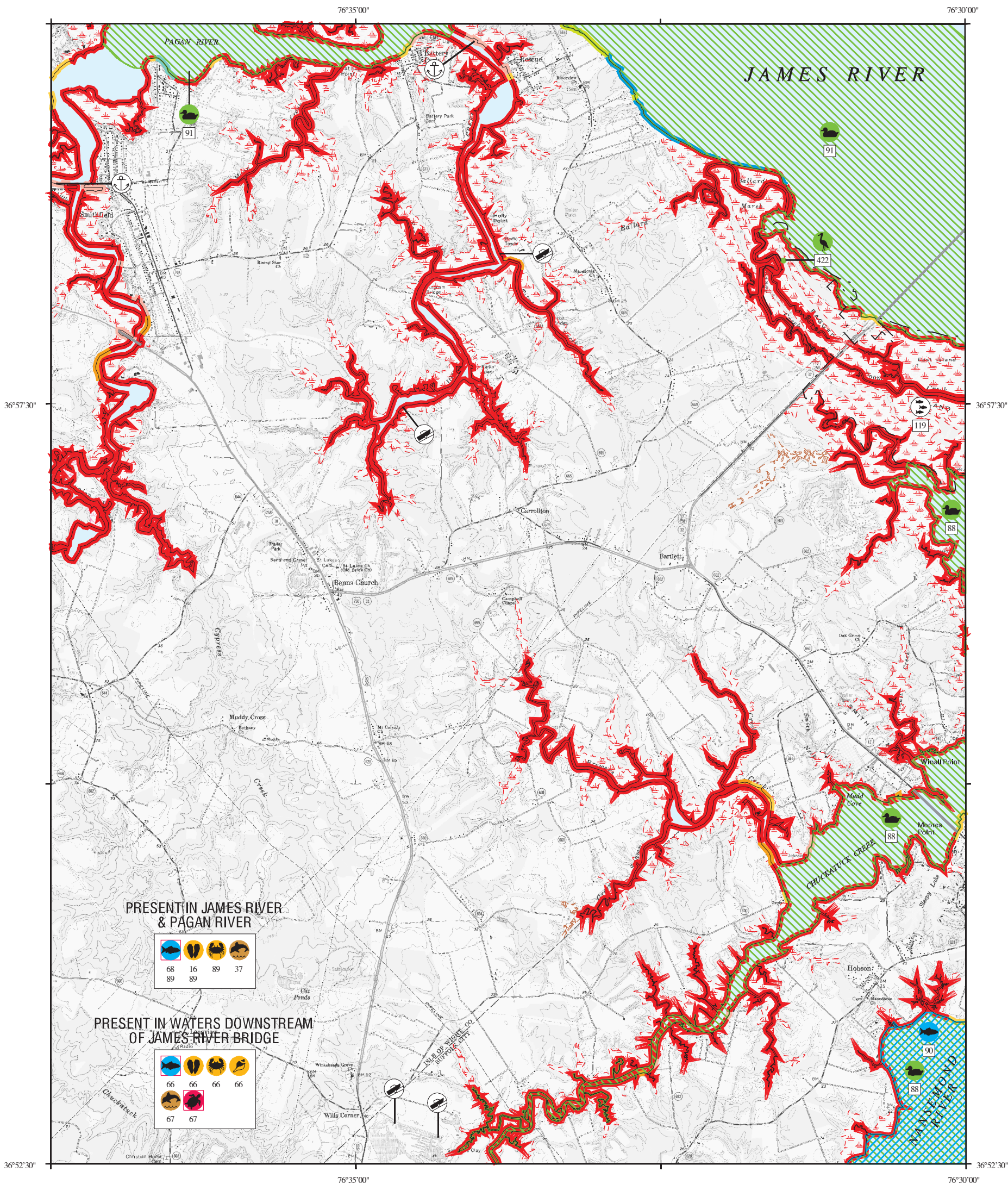


ENVIRONMENTAL SENSITIVITY INDEX MAP



SHORELINE HABITATS (ESI)

- 1B EXPOSED, SOLID MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN CLAY
- 2B EXPOSED SCARPS AND STEEP SLOPES IN CLAY
- 3A FINE-TO MEDIUM-GRAINED SAND BEACHES
- 3B SCARPS AND STEEP SLOPES IN SAND
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED SCARPS IN CLAY
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 8C SHELTERED RIPRAP
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED, VEGETATED LOW BANKS
- 10A SALT-AND BRACKISH-WATER MARSHES
- 10B FRESHWATER MARSHES
- 10C SWAMP
- 10D SCRUB-SHRUB WETLANDS

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SCALE 1:50000

1 KILOMETER

1 MILE

Delaware

Maryland

Virginia

North Carolina

VOLUME 1

VOLUME 2

VOLUME 1

VOLUME 2

Virginia: ESIMAP 14

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
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		-	-	-
422	Great blue heron	17 NESTS	X	X	X	X	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
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		-	-	-	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		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-NOV
	Bay anchovy	C	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	-	-	-	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	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	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	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	X				MAY-JUL	-	-	-	MAR-OCT
	Red drum				X	X	X	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	-	-	-	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								-	-	-	-	FEB-JUN
	Blueback herring			X	X	X	X	X							-	-	-	-	FEB-JUN
	Hickory shad			X	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	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	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	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
	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		-	-	-	-

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 14 (cont.)

BIOLOGICAL RESOURCES: (cont.)

MARINE MAMMAL: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
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	Interesting	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