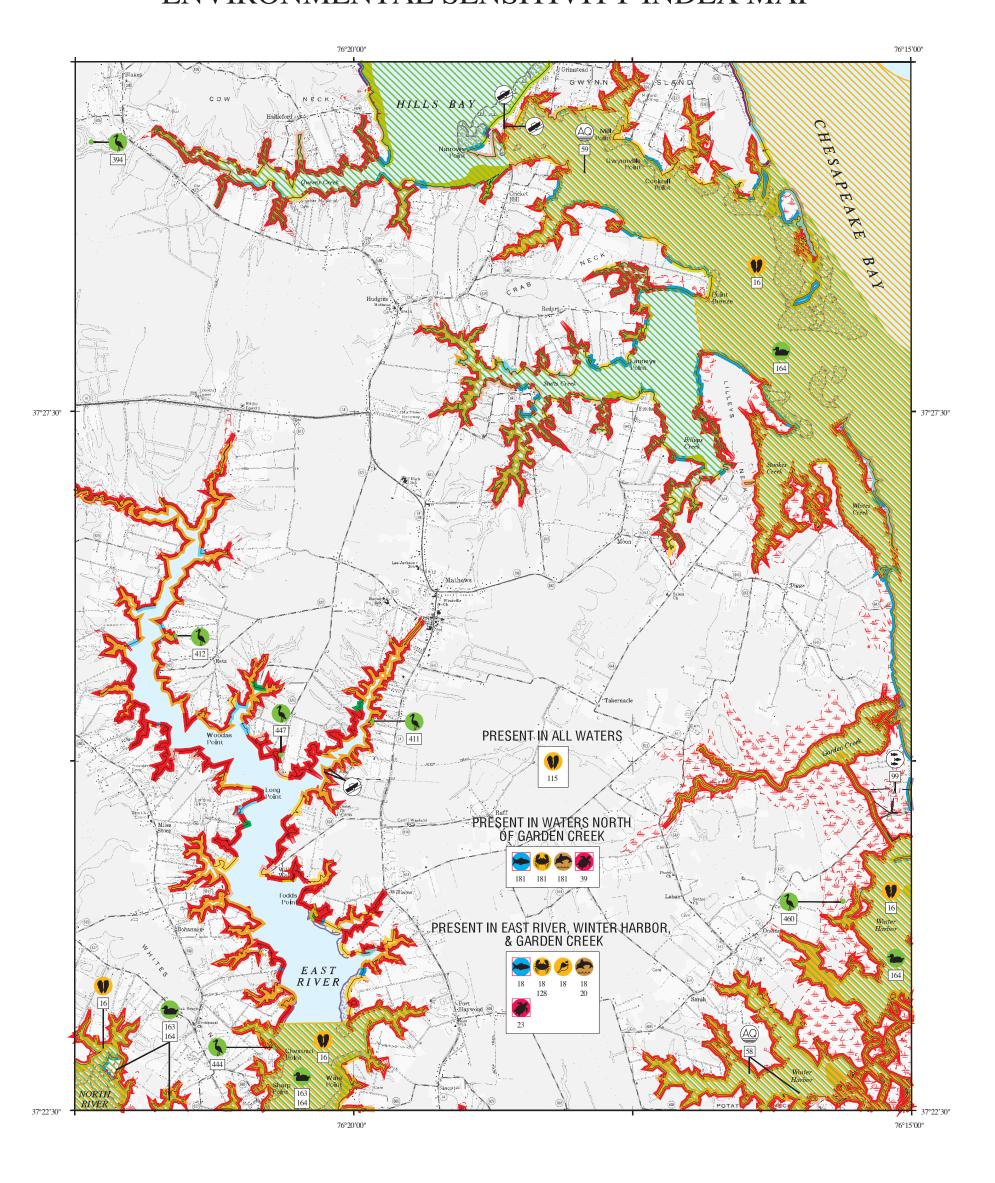
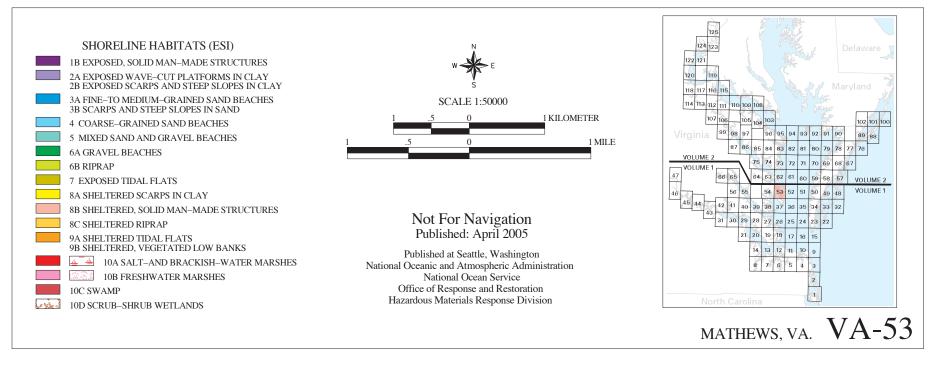
ENVIRONMENTAL SENSITIVITY INDEX MAP





Virginia: ESIMAP 53

BIOLOGICAL RESOURCES:

BIRD	:
------	---

BIRD	:											
RAR#	Species	SF	Conc.	JFM	MAMJ	JAS	OND	Nesting	Migrating	Molting		
163	American black duck		MODERATE	 X X X	·		 X X X				-	
103	American wigeon		MODERATE	XXX			XXX	_	_	_		
	Brant		1102214112	XXX			XXX	_	_	_		
	Canada goose		HIGH	XXX	XX		X X X		-	-		
	Gadwall		MODERATE	XXX			X X X	-	-	-		
161	Mallard Bufflehead		MODERATE HIGH	XXX			X X X X X X X X X X X X X X X X X X X		_	-		
104	Canvasback		MODERATE	XXX			XXX		_	_		
	Common goldeneye			XXX			XXX		_	_		
	Long-tailed duck		MODERATE	XXX			X X X		-	-		
	Mergansers			XXX			XXX		-	-		
	Mute swan Ring-necked duck		MODERATE	XXX			X X X X X X X X X X X X X X X X X X X		_	-		
	Ruddy duck		HIGH	XXX			XXX		_	_		
	Scaup		MODERATE	XXX			X X X	-	-	-		
	Scoters		HIGH	XXX			XXX	_	-	-		
394	Tundra swan Great blue heron		MODERATE 9 NESTS	XXX		x x x	XXX	- MAY-JUL	_	_		
	Great blue heron		3 NESTS					MAY-JUL	_	_		
412	Great blue heron		6 NESTS	XXX	XXXX	X X X	X X X	MAY-JUL	-	-		
444	Great blue heron		24 NESTS					MAY-JUL	-	-		
447 460	Great blue heron Great blue heron		16 NESTS 110 NESTS					MAY-JUL MAY-JUL	_	_		
400	Great blue heloh		IIO NESIS	AAA	1 A A A .	ΛΛΛ	AAA	MAI OOL				
FISH	:											
RAR#	•		Conc.	JFM	MAMJ	JAS	OND	Spawning	Eggs	Larvae	Juveniles	Adults
1.0	Alewife			 v v	·							FEB-JUN
10	American eel				X X X X	ххх	ххх	_	_	_	JAN-DEC	SEP-DEC
	American shad			XXX	XXXX		ХХ	-	-	-	NOV-MAR	JAN-JUN
	Atlantic croaker					XXX	XXX	_	-	-	AUG-DEC	MAY-NOV
	Atlantic mackerel Atlantic menhaden				K X K X X X I	v v v	V V V	_	_	- MAY-NOV	- JAN-DEC	MAR-APR MAY-OCT
	Atlantic silverside							MAR-JUL	_	-	JAN-DEC	JAN-DEC
	Atlantic spadefish						ХХ	-	-	-	AUG-OCT	AUG-NOV
	Atlantic sturgeon	С			XXXX			-	-	-	-	JAN-OCT
	Bay anchovy Black drum			XXX	X X X X X X X X X X X X X X X X X X X			APR-SEP APR-JUN	- APR-JUN	- APR-JUN	JAN-DEC APR-NOV	JAN-DEC APR-NOV
	Black sea bass				XXXX			JUN-OCT	- 777 1/ OOM	- '71' 1/ OOM	APR-NOV APR-OCT	APR-NOV APR-OCT
	Blueback herring			XXX	XXXX		ХХ	-	-	-	NOV-MAR	JAN-JUN
	Bluefish				X X X X			-	-	-	MAY-NOV	APR-NOV
	Butterfish Clearnose skate			Х	XXXX			_	_	_	JUL-NOV -	MAR-NOV
	Gobies			x x x		X X X X X X X X X X X X X X X X X X X		- APR-SEP	APR-SEP	APR-OCT	JAN-DEC	MAY-NOV JAN-DEC
	Harvestfish			21 21 2	XXXX			-	-	-	JUL-OCT	APR-OCT
	Hickory shad			XXX	XXXX		ХХ	-	-	-	NOV-MAR	JAN-JUN
	Hogchoker							MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Inland silverside Minnows							APR-MAY APR-AUG	_	-	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Mummichog							APR-AUG	_	_	JAN-DEC	JAN-DEC
	Northern kingfish				X X X X			-	-	-	-	APR-OCT
	Northern pipefish							MAY-JUN	-	_	JAN-DEC	JAN-DEC
	Northern puffer Northern searobin				<pre></pre>			MAY-AUG MAY-JUL	-	-	MAR-OCT	MAR-OCT MAR-OCT
	Red drum			21		XXX		JUL-NOV	_	_	AUG-SEP	MAY-NOV
	Red hake			XX	XXX			-	-	-	FEB-MAY	FEB-MAY
	_ , , ,											SEP-NOV
	Sandbar shark Scup (porgy)			v	. x x x	XXX		_	-	_	MAY-OCT JUN-OCT	MAY-OCT MAR-OCT
	Silver hake			XXX		^ ^ ^	XXX		_	_	-	OCT-MAY
	Silver perch					ххх		APR-MAY	_	_	JAN-DEC	JAN-DEC
	Spot				XXXX				-		MAR-NOV	MAR-NOV
	Spotted hake			Х	XXXX	Х	ХХ	-	-	-	MAR-JUN	MAR-JUN SEP-NOV
	Spotted seatrout				X X X	x x x	хх	MAY-JUL	_	_	APR-NOV	APR-NOV
	Striped bass			XXX	XXXX				-	-	JAN-DEC	JAN-DEC
	Striped killifish							APR-SEP	-	-	JAN-DEC	JAN-DEC
	Summer flounder				XXXXX				_	OCT-MAY	JAN-DEC -	APR-OCT
	Tautog Threadfin shad			XXX	x x x x x		X X X	_	_	_	-	OCT-APR FEB-MAY
	Inicadiii biidd			21 2	1 21 21		21 21					SEP-NOV
	Weakfish				X X X X	X X X	ХХ	APR-AUG	-	MAY-AUG	APR-NOV	APR-NOV
181	Alewife				XXXX			-	-	-	-	FEB-JUN
	American eel American shad				X	ххХ	X X X		-	-	JAN-DEC NOV-MAR	SEP-DEC JAN-JUN
	Atlantic croaker					ххх	XXX		_	_	AUG-DEC	MAY-NOV
	Atlantic mackerel				X X			-	-	-	-	MAR-APR
	Atlantic menhaden Atlantic silverside				XXXX			- M7D - TIII	-	MAY-NOV -	JAN-DEC	MAY-OCT
	Atlantic silverside Atlantic spadefish			AXX	. A A X .		XXX	MAR-JUL -	-	-	JAN-DEC AUG-OCT	JAN-DEC AUG-NOV
	Atlantic sturgeon	С		XXX	X X X X			-	-	-	-	JAN-OCT
	Bay anchovy				XXXX	ХХХ	X X X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Black drum				XXXX			APR-JUN			APR-NOV	APR-NOV
	Black sea bass Blueback herring			X X V	X X X X		X X X	JUN-OCT -	-	-	APR-OCT NOV-MAR	APR-OCT JAN-JUN
	Bluefish			ΔΛΛ	XXXX			-	-	-	MAY-NOV	APR-NOV
	Butterfish			X	XXXX	ХХХ	ХХ	-	-	-	JUL-NOV	MAR-NOV
	Clearnose skate					XXX		-	-	-	-	MAY-NOV
	Gobies Harvestfish			XXX	X X X X X X X X X X X X X X X X X X X			APR-SEP	APR-SEP	APR-OCT	JAN-DEC JUL-OCT	JAN-DEC APR-OCT
	Hickory shad			XXX	XXXX	21 21 21	XX	_	_	_	NOV-MAR	JAN-JUN
	Hogchoker			XXX	X X X X		X X X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Inland silverside							APR-MAY	-	-	JAN-DEC	JAN-DEC
	Minnows Mummichog							APR-AUG APR-AUG	_	_	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Northern kingfish								-		-	APR-OCT
	Northern pipefish			XXX	XXXX	ХХХ	X X X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Northern puffer							MAY-AUG	-	-	MAR-OCT	MAR-OCT
	Northern searobin Red drum			Х				MAY-JUL JUL-NOV	_	_	- AUG-SEP	MAR-OCT MAY-NOV
	Red hake			ХХ	XXX		XX	- 22T IVOA	_	_	FEB-MAY	FEB-MAY
				2	•						·=	SEP-NOV
	Sandbar shark					XXX		-	-	-	MAY-OCT	MAY-OCT
	Scup (porgy) Silver hake				<		XXXX	-	-	-	JUN-OCT -	MAR-OCT OCT-MAY
	Silver hake Silver perch							APR-MAY	-	-	JAN-DEC	JAN-DEC
	Spot			XXX	X X X X	X X X	X X X		-	DEC-APR	MAR-NOV	MAR-NOV
	Spotted hake			Х	XXXX	X	ХХ	-	-	-	MAR-JUN	MAR-JUN
	Spotted seatrout				X	y y v	χу	MAY-JUL	_	_	APR-NOV	SEP-NOV APR-NOV
	Spotted Scattoat				ΑΛΑ.		77 V	UU			-71-1/ TA∩ A	111 1/ 14 ∩ A

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 53 (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 3	Juveniles	Adults
181	Striped bass		X X X X X X X X X X X X X X X X X X X	-	-		JAN-DEC	JAN-DEC
	Striped killifish		imes ime	APR-SEP	-	- 3	JAN-DEC	JAN-DEC
	Summer flounder		imes ime	-	-	OCT-MAY	JAN-DEC	APR-OCT
	Tautog		$X \ X \ X \ X$ $X \ X \ X \ X$	-	-	-	_	OCT-APR
	Threadfin shad		X X X X X X X X	-	-	-	-	FEB-MAY
	Weakfish		X X X X X X X X	APR-AUG	_	MAY-AUG A	APR-NOV	SEP-NOV APR-NOV
INVE	RTEBRATE:							
RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae 3	Juveniles	Adults
16	Northern quahog (hard clam)			MAY-OCT	MAY-OCT	MAY-OCT S	JAN-DEC	JAN-DEC
	Horseshoe crab		\times		_		JAN-DEC	JAN-DEC
	Knobbed whelk		imes ime	_	-	- 3	JAN-DEC	JAN-DEC
115	Eastern oyster		imes ime	JUN-SEP	JUN-SEP	JUN-SEP 3	JAN-DEC	JAN-DEC
128	Blue crab		imes ime	-	MAY-SEP	MAY-NOV C	JAN-DEC	JAN-DEC
181	Blue crab		$\times \times $	-	-	MAY-NOV C	JAN-DEC	JAN-DEC
MARI	NE MAMMAL:							
RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping N	Molting	
18	Harbor porpoise		X	-	-	-	-	
20	Bottlenose dolphin		X X X X X X X	-	-	-	-	
181	Bottlenose dolphin		X X X X X X X	-	-	-	-	
	Harbor porpoise		X X X X X X	-	-	-	-	
REPT	'ILE:							
RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Internesti	ng Juvenil	es Adults
23	Green sea turtle	тт	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	т т	X X X X X X X	_	-	_	MAY-NOV	MAY-NOV
39	Green sea turtle	т т	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	ТТ	X X X X X X X	-	-	-	MAY-NOV	_

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
58 59	AQUACULTURE: OYSTERS SEA FARMS, INC.: HARD CLAM RELAY	RON SOPKO	804/725-9113
MANA	GEMENT AREA:		

HUN#	Name	Contact	Phone
99	BETHEL BEACH NATURAL AREA PRESERVE	VA DCR DNH	804/445-9117