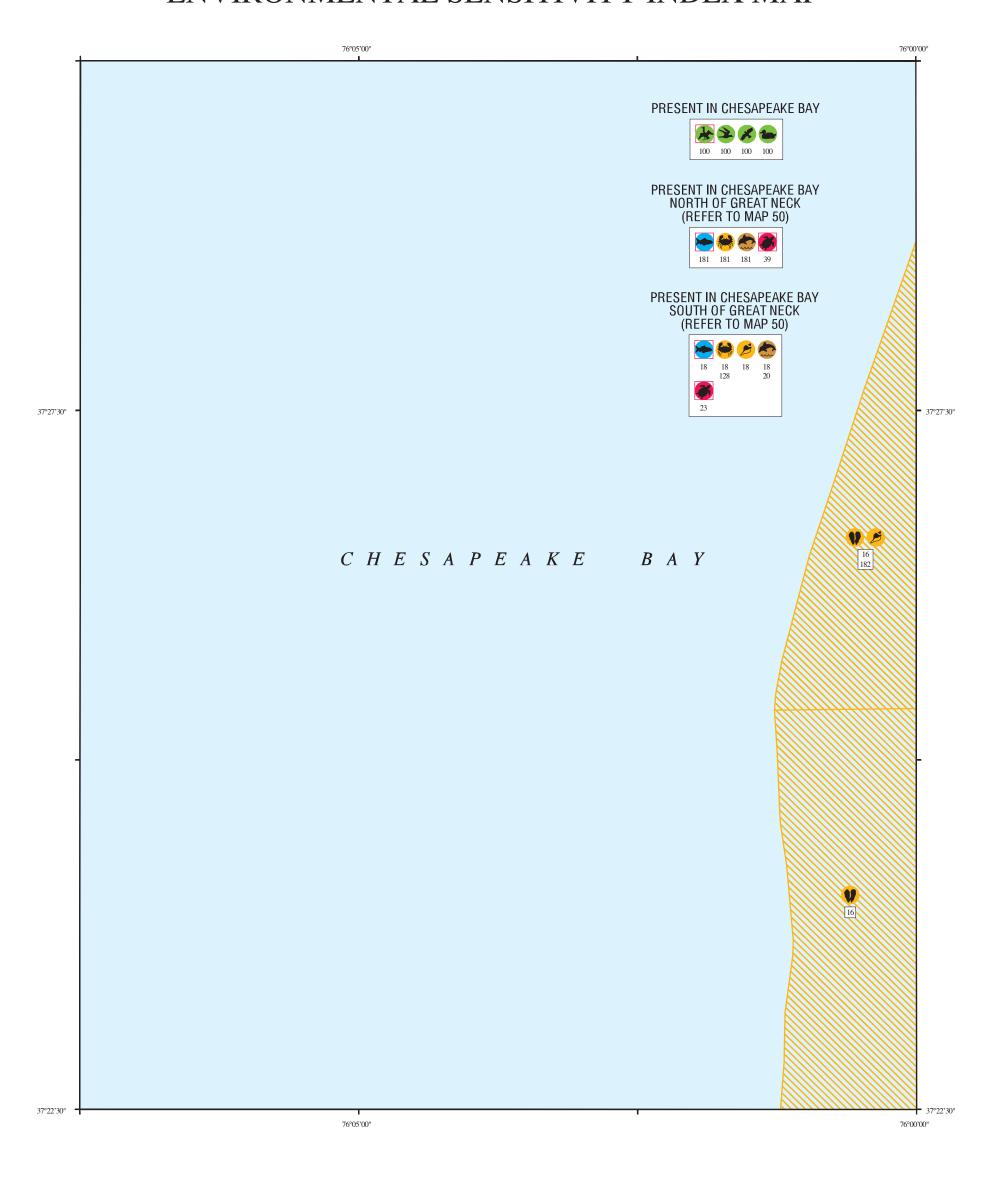
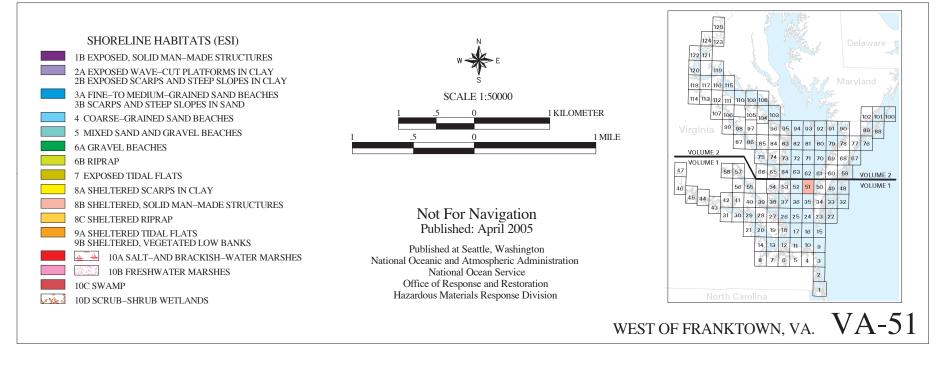
## ENVIRONMENTAL SENSITIVITY INDEX MAP





## Virginia: ESIMAP 51

## BIOLOGICAL RESOURCES:

BIRD	:
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BIRD RAR#	: Species	S F Conc.	J F M A M J J A S O N D	Nesting	Migrating	Molting		
	Brown pelican						_	
	Gulls		$\times \times $		-	-		
	Loons Mergansers		X X X X X X X X X X X X X X X X X X X	_	-	-		
	Osprey Scoters	HIGH	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	-		
	Terns		X X X X X X X X	-	-	-		
FISH								
RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs 	Larvae	Juveniles	Adults
18	Alewife American eel		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	-	_	- JAN-DEC	FEB-JUN SEP-DEC
	American shad Atlantic croaker		X X X X X X X X X X X X X X X X X X X	-	-	- -	NOV-MAR AUG-DEC	JAN-JUN MAY-NOV
	Atlantic mackerel		X X	-	-	-	-	MAR-APR
	Atlantic menhaden Atlantic silverside		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- MAR-JUL	-	MAY-NOV -	JAN-DEC JAN-DEC	MAY-OCT JAN-DEC
	Atlantic spadefish Atlantic sturgeon	C	$\begin{smallmatrix} & & & & \times & \times & \times & \times \\ & & & \times & \times & \times$	_	-	_	AUG-OCT	AUG-NOV JAN-OCT
	Bay anchovy	Ŭ	$\times \times $	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Black drum Black sea bass		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		APR-JUN -	APR-JUN -	APR-NOV APR-OCT	APR-NOV APR-OCT
	Blueback herring Bluefish		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	-	-	NOV-MAR MAY-NOV	JAN-JUN APR-NOV
	Butterfish Clearnose skate		$\begin{smallmatrix} X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&$	-	-	_	JUL-NOV	MAR-NOV MAY-NOV
	Gobies		$\times \times $	APR-SEP	APR-SEP	APR-OCT	JAN-DEC	JAN-DEC
	Harvestfish Hickory shad		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	-	-	JUL-OCT NOV-MAR	APR-OCT JAN-JUN
	Hogchoker Inland silverside		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		MAY-SEP -	MAY-SEP	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Minnows Mummichog		X X X X X X X X X X X X X X X X X X X	APR-AUG	-	-	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Northern kingfish		X X X X X X X	-		-	-	APR-OCT
	Northern pipefish Northern puffer		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	-	JAN-DEC MAR-OCT	JAN-DEC MAR-OCT
	Northern searobin Red drum		$\begin{smallmatrix} X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&$		-	-	- AUG-SEP	MAR-OCT MAY-NOV
	Red hake		XXXX XXX	-		-	FEB-MAY	FEB-MAY
	Sandbar shark		X X X X X X	-	-	-	MAY-OCT	SEP-NOV MAY-OCT
	Scup (porgy) Silver hake		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	_	JUN-OCT -	MAR-OCT OCT-MAY
	Silver perch		$\begin{smallmatrix} X & X & X & X & X & X & X & X & X & X $	APR-MAY	-	- DEC-APR	JAN-DEC MAR-NOV	JAN-DEC
	Spott Spotted hake		X X X X X X X X X X	-	-	-	MAR-JUN	MAR-NOV MAR-JUN
	Spotted seatrout		X	MAY-JUL	_	_	APR-NOV	SEP-NOV APR-NOV
	Striped bass Striped killifish		$\begin{smallmatrix} X & X & X & X & X & X & X & X & X & X $	- 7 DD <b>-</b> GFD	-	-	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Summer flounder		$\times \times $	-	-	OCT-MAY	JAN-DEC	APR-OCT
	Tautog Threadfin shad		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	-	-	-	OCT-APR FEB-MAY
	Weakfish		X	APR-AUG	_	MAY-AUG	APR-NOV	SEP-NOV APR-NOV
181	Alewife American eel		$\begin{array}{c} \mathbf{X} \ \mathbf{X} \ \mathbf{X} \ \mathbf{X} \ \mathbf{X} \\ \mathbf{X} \ \mathbf{X} \\ \end{array}$	_	-	-	- JAN-DEC	FEB-JUN SEP-DEC
	American shad		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		-	-	NOV-MAR	JAN-JUN
	Atlantic croaker Atlantic mackerel		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	-	-	AUG-DEC -	MAY-NOV MAR-APR
	Atlantic menhaden Atlantic silverside		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- MAR-JUI	-	MAY-NOV -	JAN-DEC JAN-DEC	MAY-OCT JAN-DEC
	Atlantic spadefish	С	$\begin{smallmatrix}&&&&&&X&X&X\\X&X&X&X&X&X&X&X&X&X&X&X&X&X$	-	-	- -	AUG-OCT	AUG-NOV JAN-OCT
	Atlantic sturgeon Bay anchovy	C	$\times \times $	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Black drum Black sea bass		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	APR-JUN JUN-OCT	APR-JUN -	APR-JUN -	APR-NOV APR-OCT	APR-NOV APR-OCT
	Blueback herring Bluefish		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- -	-	<u>-</u> ,	NOV-MAR MAY-NOV	JAN-JUN APR-NOV
	Butterfish		$\times \times $	-	-	-	JUL-NOV	MAR-NOV
	Clearnose skate Gobies		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		APR-SEP	APR-OCT	JAN-DEC	MAY-NOV JAN-DEC
	Harvestfish Hickory shad		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	-	_ _	JUL-OCT NOV-MAR	APR-OCT JAN-JUN
	Hogchoker Inland silverside		$\begin{array}{cccccccccccccccccccccccccccccccccccc$		MAY-SEP	MAY-SEP	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Minnows		$\times \times $	APR-AUG	-	- -	JAN-DEC	JAN-DEC
	Mummichog Northern kingfish		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	APK-AUG -	-	-	JAN-DEC -	JAN-DEC APR-OCT
	Northern pipefish Northern puffer		$\begin{smallmatrix} X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&$	MAY-JUN MAY-AUG	-	-	JAN-DEC MAR-OCT	JAN-DEC MAR-OCT
	Northern searobin Red drum		$\begin{smallmatrix} X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&X&$	MAY-JUL JUL-NOV	-	_	- AUG-SEP	MAR-OCT MAY-NOV
	Red hake		XXXX XXXX	-	-	-	FEB-MAY	FEB-MAY
	Sandbar shark		X X X X X X	-	-	-	MAY-OCT	SEP-NOV MAY-OCT
	Scup (porgy) Silver hake		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	-	-	JUN-OCT	MAR-OCT OCT-MAY
	Silver perch		$\begin{smallmatrix} X & X & X & X & X & X & X & X & X & X $	APR-MAY	-	- DEC-APR	JAN-DEC	JAN-DEC
	Spot Spotted hake		X X X X X X X X X X X X X X X X X X X	-	-	DEC-APR	MAR-NOV MAR-JUN	MAR-NOV MAR-JUN
	Spotted seatrout		X X X X X X X X	MAY-JUL	-	-	APR-NOV	SEP-NOV APR-NOV
	Striped bass Striped killifish		$\begin{smallmatrix} X & X & X & X & X & X & X & X & X & X $	- APR-SEP	-	-	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Summer flounder		$\times \times $	-	-	OCT-MAY	JAN-DEC	APR-OCT
	Tautog Threadfin shad		$\begin{array}{cccccccccccccccccccccccccccccccccccc$			-	-	OCT-APR FEB-MAY
	Weakfish		X	APR-AUG	-	MAY-AUG	APR-NOV	SEP-NOV APR-NOV
INVE	RTEBRATE:		11 11 11	. 1100				,,,,
RAR#	Species	S F Conc.	J F M A M J J A S O N D			Larvae	Juveniles	Adults
	Northern quahog (hard clam)				MAY-OCT	MAY-OCT	JAN-DEC	JAN-DEC
	Horseshoe crab Knobbed whelk		X X X X X X X X X X X X X X X X X X X	-	-	-	JAN-DEC JAN-DEC	JAN-DEC JAN-DEC
	Blue crab		$\times \times $	-	MAY-SEP	MAY-NOV	JAN-DEC	JAN-DEC
181	Blue crab		X X X X X X X X X X X X	-	-	MAY-NOV	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 51 (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 J	uveniles 1	dults
182	Knobbed whelk		x x x x x x x x x x x x x	-	-	– J	AN-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 M	olting	
18	Harbor porpoise		X X X X X X 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	Internestin	g Juvenile:	Adults
23	Green sea turtle	 Т Т	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	$X \ X \ X \ X \ X \ X$	-	-	-	-	MAY-NOV
	Loggerhead sea turtle	ТТ	X X X X X X X	-	-	-	MAY-NOV	MAY-NOV
39	Green sea turtle	т т	$X \ X \ X \ X \ X \ X$	-	-	-	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	_