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Lower Hudson-Long Island Bays Table 1. Multi Resolution Land Classification (MRLC) land cover classifications and corresponding percent cover in the Lower Hudson - Long Island Bays Basin.

Classification	% Cover
Low Intensity Residential	27.33
Mixed Forest	19.97
Deciduous Forest	15.55
High Intensity Residential	9.68
Evergreen Forest	5.83
High Intensity Commercial/Industrial	4.79
Water	4.38*
Pasture/Hay	3.56
Parks, Lawns, Golf Courses	2.99
Row Crops	2.83
Woody Wetlands	1.53
Emergent Wetlands	0.75
Barren: Bare Rock and Sand	0.55
Barren: Quarries, Strip Mines, Gravel Pits	0.19
Uncoded	0.08

* This data set only includes water areas contained within the landforms of the Basin, e.g. lakes and streams, not open bays.

Lower Hudson-Long Island Bays Table 2. State parks in the Lower Hudson - Long Island Bays Basin and their acreage.

Park Name	Total Acreage
Alfred E. Smith/Sunken Meadow	1,157
Bayard Cutting Arboretum	679
Bayswater	20
Bear Mountain	4,787
Belmont Lake	487
Bethpage	1,438
Blauvelt	572
Brookhaven	1,646
Caleb Smith	530
Camp Hero	399
Captree	502
Clarence Fahnestock	12,516
Clay Pit Ponds	249
Cold Spring Harbor	45
Connetquot River	3,446
East River	8
Empire-Fulton Ferry	8
Franklin Delano Roosevelt	835
Gantry Plaza	3
Gilgo	1,063
Graniteville Quarry	5
Harriman	46,725
Harts Brook Nature Preserve	120
Haverstraw Beach	36
Heckscher	1,564
Hempstead Lake	516
High Tor	628
Hither Hills	1,722
Hither Woods	1,431
Hook Mountain	792
Hudson Highlands	5,031
Hudson River Park	338
Iona Island	134
Jones Beach	2,536
Montauk Downs	186
Montauk Point	809
Napeague	1,482
Nissequogue River	134
Nyack Beach	141
Orient Beach	348
Palisades	20
Peter Jay	20
Riverbank	29
Robert Moses	923
Roberto Clemente	32
Rockefeller Preserve	718
Rockland Lake	956
Rockwood Hall	118
Sag Harbor	121
Sanctuary	337
Shadmoor	101
Sterling Forest	17,590
Taconic	5,664
Tallman Mountain	680
Valley Stream	65
Wildwood	788
Wonder Lake	829
	124,058

Lower Hudson-Long Island Bays Table 3. NYSDEC land units within the Lower Hudson - Long Island Bays Basin.

Unit Name (DEC Region)	Acres	Primary Natural Habitats
BEEBE HILL STATE FOREST	2,830	
BIG BUCK MUA	151	
BLOESSERS POND	4	
BOG BROOK UNIQUE AREA	131	wetlands
BRONX RIVER TRAIL	0	riparian trails
CALIFORNIA HILL MUA	886	
CRANBERRY MOUNTAIN WMA	450	
CROTON GORGE UNIQUE AREA	1,337	
DAVID A SARNOFF	2,310	pine barrens
GOETHALS POND	2	tidal wetlands
HARBOR HERONS	40	tidal wetlands, heron rookery
HARVEY MOUNTAIN STATE FOREST	150	
HAWK WATCH TRAILWAY	5	
KAUFMAN CAMP	77	
KINGS PARK	65	
LEMBO	2	
LEMON CREEK	43	
LONG BEACH	422	
LONG ISLAND	1,269	pine barrens
MINISCEONGO MARSH	20	
MONTROSE POINT STATE FOREST	52	
MT. LORETTO	150	
NAPEAGUE HARBOR	24	tidal wetlands
NIMHAM MOUNTAIN MUA	1,024	
NORTH HAVEN	202	
OAK BRUSH PLAINS	731	
OAKWOOD BEACH	1	
OTIS PIKE	2,963	pine barrens
PIERMONT MARSH	68	brackish wetlands
QUOGUE	304	freshwater wetlands, forests
RICHMOND COUNTRY CLUB	124	
ROCKY POINT	5,171	
SAWMILL CREEK	7	
SLADE	2	
TITUS MILL	5	
TURKEY MOUNTAIN	287	
UDALLS PRESERVE	42	
WASSAIC MUA	501	
WEST MOUNTAIN STATE FOREST	822	
WHITE POND MUA	287	
WILPON	25	
17,199		

Lower Hudson-Long Island Bays Table 4. Species of Greatest Conservation Need currently found in the Lower Hudson - Long Island Bays Basin. Species are sorted alphabetically by taxonomic group and species common name. The Species Group designation is included, indicating which Species group report in the appendix will contain full information about the species. The stability of the species' populations in this basin are also indicated.

TaxaGroup	Species	Scientific Name	SpeciesGroup	Stability
Bird	American bittern	<i>Botaurus lentiginosus</i>	Freshwater marsh nesting birds	Decreasing
Bird	American black duck	<i>Anas rubripes</i>	Breeding waterfowl	Unknown
Bird	American golden-plover	<i>Pluvialis dominica</i>	Transient shorebirds	Unknown
Bird	American oystercatcher	<i>Haematopus palliatus</i>	Beach and Island ground-nesting birds	Increasing
Bird	American woodcock	<i>Scolopax minor</i>	Early successional forest/shrubland birds	Decreasing
Bird	Atlantic brant	<i>Branta bernicla</i>	Wintering waterbirds	Stable
Bird	Bald eagle	<i>Haliaeetus leucocephalus</i>	Bald Eagle	Increasing
Bird	Barn owl	<i>Tyto alba</i>	Barn owl	Unknown
Bird	Black rail	<i>Laterallus jamaicensis</i>	Salt marsh breeding birds	Unknown
Bird	Black scoter	<i>Melanitta nigra</i>	Wintering waterbirds	Unknown
Bird	Black skimmer	<i>Rynchops niger</i>	Beach and Island ground-nesting birds	Stable
Bird	Black-bellied plover	<i>Pluvialis squatarola</i>	Transient shorebirds	Unknown
Bird	Black-billed cuckoo	<i>Coccyzus erythrophthalmus</i>	Early successional forest/shrubland birds	Decreasing
Bird	Black-crowned night-heron	<i>Nycticorax nycticorax</i>	Colonial-nesting herons	Stable
Bird	Black-throated blue warbler	<i>Dendroica caerulescens</i>	Deciduous/mixed forest breeding birds	Stable
Bird	Blue-winged warbler	<i>Vermivora pinus</i>	Early successional forest/shrubland birds	Decreasing
Bird	Bobolink	<i>Dolichonyx oryzivorus</i>	Grassland birds	Decreasing
Bird	Brown thrasher	<i>Toxostoma rufum</i>	Early successional forest/shrubland birds	Decreasing
Bird	Buff-breasted sandpiper	<i>Tryngites subruficollis</i>	Transient shorebirds	Unknown
Bird	Canada warbler	<i>Wilsonia canadensis</i>	Early successional forest/shrubland birds	Decreasing
Bird	Cattle egret	<i>Bubulcus ibis</i>	Colonial-nesting herons	Decreasing
Bird	Cerulean warbler	<i>Dendroica cerulea</i>	Deciduous/mixed forest breeding birds	Increasing
Bird	Common nighthawk	<i>Chordeiles minor</i>	Common nighthawk	Decreasing
Bird	Common tern	<i>Sterna hirundo</i>	Beach and Island ground-nesting birds	Decreasing
Bird	Cooper's hawk	<i>Accipiter cooperii</i>	Forest breeding raptors	Increasing
Bird	Dunlin	<i>Calidris alpina</i>	Transient shorebirds	Unknown
Bird	Eastern meadowlark	<i>Sturnella magna</i>	Grassland birds	Decreasing
Bird	Forster's tern	<i>Sterna forsteri</i>	Salt marsh breeding birds	Increasing
Bird	Glossy ibis	<i>Plegadis falcinellus</i>	Colonial-nesting herons	Decreasing
Bird	Golden eagle	<i>Aquila chrysaetos</i>	Forest breeding raptors	Unknown
Bird	Golden-winged warbler	<i>Vermivora chrysoptera</i>	Early successional forest/shrubland birds	Decreasing
Bird	Grasshopper sparrow	<i>Ammodramus savannarum</i>	Grassland birds	Decreasing
Bird	Great egret	<i>Ardea alba</i>	Colonial-nesting herons	Increasing
Bird	Greater scaup	<i>Aythya marila</i>	Wintering waterbirds	Decreasing
Bird	Gull-billed tern	<i>Sterna nilotica</i>	Salt marsh breeding birds	Stable
Bird	Horned grebe	<i>Podiceps auritus</i>	Wintering waterbirds	Unknown
Bird	Horned lark	<i>Eremophila alpestris</i>	Grassland birds	Decreasing

Lower Hudson-Long Island Bays Table 4. (continued)

TaxaGroup	Species	Scientific Name	SpeciesGroup	Stability
Bird	Hudsonian godwit	<i>Limosa haemastica</i>	Transient shorebirds	Stable
Bird	Kentucky warbler	<i>Oporornis formosus</i>	Deciduous/mixed forest breeding birds	Unknown
Bird	King rail	<i>Rallus elegans</i>	Freshwater marsh nesting birds	Decreasing
Bird	Laughing gull	<i>Larus atricilla</i>	Salt marsh breeding birds	Decreasing
Bird	Least bittern	<i>Ixobrychus exilis</i>	Freshwater marsh nesting birds	Stable
Bird	Least tern	<i>Sterna antillarum</i>	Beach and Island ground-nesting birds	Decreasing
Bird	Lesser scaup	<i>Aythya affinis</i>	Wintering waterbirds	Stable
Bird	Little blue heron	<i>Egretta caerulea</i>	Colonial-nesting herons	Decreasing
Bird	Long-eared owl	<i>Asio otus</i>	Forest breeding raptors	Unknown
Bird	Long-tailed duck	<i>Clangula hyemalis</i>	Wintering waterbirds	Unknown
Bird	Marbled godwit	<i>Limosa fedoa</i>	Transient shorebirds	Unknown
Bird	Northern bobwhite	<i>Colinus virginianus</i>	Early successional forest/shrubland birds	Decreasing
Bird	Northern harrier	<i>Circus cyaneus</i>	Grassland birds	Decreasing
Bird	Northern pintail	<i>Anas acuta</i>	Wintering waterbirds	Unknown
Bird	Osprey	<i>Pandion haliaetus</i>	Osprey	Stable
Bird	Peregrine falcon	<i>Falco peregrinus</i>	Peregrine falcon	Increasing
Bird	Pied-billed grebe	<i>Podilymbus podiceps</i>	Freshwater marsh nesting birds	Decreasing
Bird	Piping plover	<i>Charadrius melodus</i>	Beach and Island ground-nesting birds	Increasing
Bird	Prairie warbler	<i>Dendroica discolor</i>	Early successional forest/shrubland birds	Increasing
Bird	Prothonotary warbler	<i>Protonotaria citrea</i>	Deciduous/mixed forest breeding birds	Unknown
Bird	Purple sandpiper	<i>Calidris maritima</i>	Transient shorebirds	Unknown
Bird	Red knot	<i>Calidris canutus</i>	Transient shorebirds	Decreasing
Bird	Red-headed woodpecker	<i>Melanerpes erythrocephalus</i>	Deciduous/mixed forest breeding birds	Decreasing
Bird	Red-necked phalarope	<i>Phalaropus lobatus</i>	Wintering waterbirds	Unknown
Bird	Red-shouldered hawk	<i>Buteo lineatus</i>	Forest breeding raptors	Decreasing
Bird	Red-throated loon	<i>Gavia stellata</i>	Wintering waterbirds	Unknown
Bird	Roseate tern	<i>Sterna dougallii</i>	Beach and Island ground-nesting birds	Decreasing
Bird	Ruddy duck	<i>Oxyura jamaicensis</i>	Breeding waterfowl	Unknown
Bird	Ruddy turnstone	<i>Arenaria interpres</i>	Transient shorebirds	Unknown
Bird	Ruffed grouse	<i>Bonasa umbellus</i>	Early successional forest/shrubland birds	Decreasing
Bird	Saltmarsh sharp-tailed sparrow	<i>Ammodramus caudacutus</i>	Salt marsh breeding birds	Decreasing
Bird	Sanderling	<i>Calidris alba</i>	Transient shorebirds	Unknown
Bird	Seaside sparrow	<i>Ammodramus maritimus</i>	Salt marsh breeding birds	Decreasing
Bird	Semipalmated sandpiper	<i>Calidris pusilla</i>	Transient shorebirds	Unknown
Bird	Sharp-shinned hawk	<i>Accipiter striatus</i>	Forest breeding raptors	Stable
Bird	Short-billed dowitcher	<i>Limnodromus griseus</i>	Transient shorebirds	Unknown
Bird	Short-eared owl	<i>Asio flammeus</i>	Grassland birds	Decreasing
Bird	Snowy egret	<i>Egretta thula</i>	Colonial-nesting herons	Decreasing

Lower Hudson-Long Island Bays Table 4. (continued)

TaxaGroup	Species	Scientific Name	SpeciesGroup	Stability
Bird	Surf scoter	<i>Melanitta perspicillata</i>	Wintering waterbirds	Unknown
Bird	Tricolored heron	<i>Egretta tricolor</i>	Colonial-nesting herons	Stable
Bird	Upland sandpiper	<i>Bartramia longicauda</i>	Grassland birds	Decreasing
Bird	Vesper sparrow	<i>Pooecetes gramineus</i>	Grassland birds	Decreasing
Bird	Whimbrel	<i>Numenius phaeopus</i>	Transient shorebirds	Unknown
Bird	Whip-poor-will	<i>Caprimulgus vociferus</i>	Early successional forest/shrubland birds	Decreasing
Bird	White-winged scoter	<i>Melanitta fusca</i>	Wintering waterbirds	Unknown
Bird	Willet	<i>Catoptrophorus semipalmatus</i>	Salt marsh breeding birds	Increasing
Bird	Willow flycatcher	<i>Empidonax traillii</i>	Early successional forest/shrubland birds	Decreasing
Bird	Wood thrush	<i>Hylocichla mustelina</i>	Deciduous/mixed forest breeding birds	Decreasing
Bird	Worm-eating warbler	<i>Helmitheros vermivorum</i>	Deciduous/mixed forest breeding birds	Decreasing
Bird	Yellow rail	<i>Coturnicops noveboracensis</i>	Freshwater marsh nesting birds	Unknown
Bird	Yellow-breasted chat	<i>Icteria virens</i>	Early successional forest/shrubland birds	Unknown
Bird	Yellow-crowned night-heron	<i>Nyctanassa violacea</i>	Colonial-nesting herons	Decreasing
Crustacea/Meristomata	American lobster	<i>Homarus americanus</i>	American lobster	Decreasing
Crustacea/Meristomata	Blue crab	<i>Callinectes sapidus</i>	Blue crab	Unknown
Crustacea/Meristomata	fiddler crab	<i>Uca pugnax</i>	Fiddler crab	Unknown
Crustacea/Meristomata	Horseshoe crab	<i>Limulus polyphemus</i>	Horseshoe crab	Unknown
Crustacea/Meristomata	Marine zooplankton	<i>Various species of invertebrates</i>	Zooplankton	Unknown
Freshwater fish	Banded sunfish	<i>Enneacanthus obesus</i>	Banded sunfish	Unknown
Freshwater fish	Brook trout, Heritage strains	<i>Salvelinus fontinalis</i>	Brook trout, Heritage strains	Stable
Freshwater fish	Swamp darter	<i>Etheostoma fusiforme</i>	Swamp darter	Unknown
Herpetofauna	Black ratsnake	<i>Elaphe obsoleta</i>	Woodland/grassland snakes	Decreasing
Herpetofauna	Blue-spotted salamander	<i>Ambystoma laterale</i>	Vernal pool salamanders	Unknown
Herpetofauna	Bog turtle	<i>Clemmys muhlenbergii</i>	Uncommon turtles of wetlands	Decreasing
Herpetofauna	Eastern box turtle	<i>Terrapene carolina</i>	Box Turtle	Decreasing
Herpetofauna	Eastern hognose snake	<i>Heterodon platirhinos</i>	Woodland/grassland snakes	Decreasing
Herpetofauna	Eastern mud turtle	<i>Kinosternon subrubrum</i>	Uncommon turtles of wetlands	Decreasing
Herpetofauna	Eastern ribbonsnake	<i>Thamnophis sauritus sauritus</i>	Lake/river reptiles	Unknown
Herpetofauna	Eastern spadefoot	<i>Scaphiopus holbrookii</i>	Eastern Spadefoot Toad	Unknown
Herpetofauna	Fence lizard	<i>Sceloporus undulatus</i>	Lizards	Decreasing
Herpetofauna	Four-toed salamander	<i>Hemidactylium scutatum</i>	Freshwater wetland amphibians	Unknown
Herpetofauna	Fowler's toad	<i>Bufo fowleri</i>	Freshwater wetland amphibians	Unknown
Herpetofauna	Green turtle	<i>Chelonia mydas</i>	Sea turtles	Unknown
Herpetofauna	Hawksbill	<i>Eretmochelys imbricata</i>	Sea turtles	Unknown
Herpetofauna	Jefferson salamander	<i>Ambystoma jeffersonianum</i>	Vernal pool salamanders	Unknown
Herpetofauna	Kemp's or Atlantic ridley	<i>Lepidochelys kempii</i>	Sea turtles	Unknown
Herpetofauna	Leatherback	<i>Dermochelys coriacea</i>	Sea turtles	Unknown
Herpetofauna	Loggerhead	<i>Caretta caretta</i>	Sea turtles	Unknown
Herpetofauna	Marbled salamander	<i>Ambystoma opacum</i>	Vernal pool salamanders	Decreasing
Herpetofauna	Northern black racer	<i>Coluber constrictor</i>	Woodland/grassland snakes	Unknown

Lower Hudson-Long Island Bays Table 4. (continued)

TaxaGroup	Species	Scientific Name	SpeciesGroup	Stability
Herpetofauna	Northern copperhead	<i>Agkistrodon contortrix mokasen</i>	Woodland/grassland snakes	Unknown
Herpetofauna	Northern cricket frog	<i>Acris crepitans</i>	Freshwater wetland amphibians	Decreasing
Herpetofauna	Northern diamondback terrapin	<i>Malaclemys terrapin terrapin</i>	Diamond-backed Terrapin	Unknown
Herpetofauna	Northern red salamander	<i>Pseudotriton ruber</i>	Stream salamanders	Decreasing
Herpetofauna	Smooth greensnake	<i>Opheodrys vernalis</i>	Woodland/grassland snakes	Decreasing
Herpetofauna	Snapping turtle	<i>Chelydra serpentina</i>	Snapping Turtle	Unknown
Herpetofauna	Southern leopard frog	<i>Rana sphenoccephala</i>	Freshwater wetland amphibians	Decreasing
Herpetofauna	Spotted turtle	<i>Clemmys guttata</i>	Uncommon turtles of wetlands	Decreasing
Herpetofauna	Stinkpot	<i>Sternotherus odoratus</i>	Uncommon turtles of wetlands	Unknown
Herpetofauna	Tiger salamander	<i>Ambystoma tigrinum</i>	Vernal pool salamanders	Decreasing
Herpetofauna	Timber rattlesnake	<i>Crotalus horridus</i>	Woodland/grassland snakes	Decreasing
Herpetofauna	Wood turtle	<i>Clemmys insculpta</i>	Lake/river reptiles	Decreasing
Herpetofauna	Worm snake	<i>Carphophis amoenus</i>	Woodland/grassland snakes	Decreasing
Insect	A geometrid moth	<i>Nemoria bifilata</i>	Other moths	Unknown
Insect	A geometrid moth	<i>Semiothisa banksianae</i>	Other moths	Unknown
Insect	A hand-maid moth	<i>Datana ranaeiceps</i>	Other moths	Decreasing
Insect	A moth	<i>Lepipolys perscripta</i>	Other moths	Unknown
Insect	A noctuid moth	<i>Abagrotis barnesi</i>	Other moths	Decreasing
Insect	A noctuid moth	<i>Amphipoea erepta ryensis</i>	Other moths	Unknown
Insect	A noctuid moth	<i>Chaetagnaea cerata</i>	Other moths	Unknown
Insect	A noctuid moth	<i>Chytonix sensilis</i>	Other moths	Unknown
Insect	A noctuid moth	<i>Euclyptocnemis fimbriaris</i>	Other moths	Decreasing
Insect	A noctuid moth	<i>Euxoa pleuritica</i>	Other moths	Decreasing
Insect	A noctuid moth	<i>Heterocampa varia</i>	Other moths	Unknown
Insect	A noctuid moth	<i>Phoberia orthosioides</i>	Other moths	Unknown
Insect	A noctuid moth	<i>Richia acclivis</i>	Other moths	Decreasing
Insect	A noctuid moth	<i>Schinia bifascia</i>	Other moths	Decreasing
Insect	Acadian swordgrass moth	<i>Xylena thoracica</i>	Other moths	Unknown
Insect	An underwing moth	<i>Catocala sp 3</i>	Other moths	Unknown
Insect	Arogos skipper	<i>Atrytone arogos arogos</i>	Other butterflies	Decreasing
Insect	Arrowhead spiketail	<i>Cordulegaster obliqua</i>	Odonates of seeps/rivulets	Unknown

Lower Hudson-Long Island Bays Table 4. (continued)

TaxaGroup	Species	Scientific Name	SpeciesGroup	Stability
Insect	Barrens buck moth	<i>Hemileuca maia maia</i>	Barrens buck moth	Unknown
Insect	Barrens itame	<i>Itame sp 1</i>	Other moths	Unknown
Insect	Barrens metarranthis moth	<i>Metarranthis apiciaria</i>	Other moths	Decreasing
Insect	Black-bordered lemon moth	<i>Thioptera nigrofimbria</i>	Other moths	Unknown
Insect	Brazilian skipper	<i>Calpododes ethlius</i>	Other butterflies	Unknown
Insect	Broad-lined catopyrrha	<i>Erastria coloraria</i>	Other moths	Unknown
Insect	Brown-bordered geometer	<i>Eumacaria latiferrugata</i>	Other moths	Unknown
Insect	Buchholz's gray	<i>Hypomecis buchholzaria</i>	Other moths	Unknown
Insect	Chain fern borer moth	<i>Papaipema stenocelis</i>	Other moths	Unknown
Insect	Checkered white	<i>Pontia protodice</i>	Other butterflies	Decreasing
Insect	Coastal barrens buckmoth	<i>Hemileuca maia ssp 5</i>	Other moths	Unknown
Insect	Coastal heathland cutworm	<i>Abagrotis nefascia benjamini</i>	Other moths	Unknown
Insect	Comet darner	<i>Anax longipes</i>	Odonates of lakes/ponds	Unknown
Insect	Dimorphic gray	<i>Tornos scolopacinaris</i>	Other moths	Unknown
Insect	Frosted elfin	<i>Callophrys irus</i>	Other butterflies	Decreasing
Insect	Gordian sphinx	<i>Sphinx gordius</i>	Other moths	Unknown
Insect	Gray petaltail	<i>Tachopteryx thoreyi</i>	Odonates of seeps/rivulets	Unknown
Insect	Gray woodgrain	<i>Morrisonia mucens</i>	Other moths	Decreasing
Insect	Henry's elfin	<i>Callophrys henrici</i>	Other butterflies	Unknown
Insect	Herodias underwing	<i>Catocala herodias gerhardi</i>	Other moths	Unknown
Insect	Hessel's hairstreak	<i>Callophrys hesseli</i>	Other butterflies	Decreasing
Insect	Jersey jair underwing	<i>Catocala jair ssp 2</i>	Other moths	Unknown
Insect	Little bluet	<i>Enallagma minusculum</i>	Odonates of coastal plain lakes/ponds	Unknown
Insect	Mantled baskettail	<i>Tetragoneuria semiaquea</i>	Odonates of lakes/ponds	Unknown
Insect	Mocha emerald	<i>Somatochlora linearis</i>	Odonates of small forest streams	Unknown
Insect	Mottled duskywing	<i>Erynnis martialis</i>	Other butterflies	Decreasing
Insect	Needham's skimmer	<i>Libellula needhami</i>	Odonates of brackish marshes/lakes/ponds	Unknown
Insect	New England bluet	<i>Enallagma laterale</i>	Odonates of lakes/ponds	Unknown
Insect	Northern oak hairstreak	<i>Fixsenia favonius ontario</i>	Other butterflies	Stable
Insect	Ostrich fern borer moth	<i>Papaipema sp 2</i>	Other moths	Unknown
Insect	Persius duskywing	<i>Erynnis persius persius</i>	Other butterflies	Unknown
Insect	Pine barrens bluet	<i>Enallagma recurvatum</i>	Odonates of coastal plain lakes/ponds	Unknown
Insect	Pink sallow	<i>Psectraglaea carnosa</i>	Other moths	Unknown
Insect	Rambur's forktail	<i>Ischnura ramburii</i>	Odonates of brackish marshes/lakes/ponds	Unknown
Insect	Regal fritillary	<i>Speyeria idalia</i>	Other butterflies	Unknown
Insect	Sable clubtail	<i>Gomphus rogersi</i>	Odonates of small forest streams	Unknown
Insect	Scarlet bluet	<i>Enallagma pictum</i>	Odonates of coastal plain lakes/ponds	Unknown
Insect	Southern grizzled skipper	<i>Pyrgus wyandot</i>	Other butterflies	Unknown
Insect	Southern sprite	<i>Nehalennia integricollis</i>	Odonates of bogs/fens/ponds	Unknown
Insect	Spatterdock darner	<i>Aeshna mutata</i>	Odonates of lakes/ponds	Unknown
Insect	Spine-crowned clubtail	<i>Gomphus abbreviatus</i>	Odonates of rivers/streams	Unknown

Lower Hudson-Long Island Bays Table 4. (continued)

TaxaGroup	Species	Scientific Name	SpeciesGroup	Stability
Insect	Tiger spiketail	<i>Cordulegaster erronea</i>	Odonates of seeps/rivulets	Unknown
Insect	Woolly gray	<i>Lycia ypsilon</i>	Other moths	Unknown
Insect	Yellow-sided skimmer	<i>Libellula flavida</i>	Odonates of bogs/fens/ponds	Unknown
Mammal	Allegheny woodrat	<i>Neotoma magister</i>	Allegheny Woodrat	Decreasing
Mammal	Eastern red bat	<i>Lasiurus borealis</i>	Tree bats	Unknown
Mammal	Harbor porpoise	<i>Phocoena phocoena</i>	Marine mammals	Unknown
Mammal	Hoary bat	<i>Lasiurus cinereus</i>	Tree bats	Unknown
Mammal	Indiana bat	<i>Myotis sodalis</i>	Indiana Bat	Increasing
Mammal	New England cottontail	<i>Sylvilagus transitionalis</i>	Game species of concern	Decreasing
Mammal	River otter	<i>Lontra canadensis</i>	Furbearers	Unknown
Marine fish	Alewife	<i>Alosa pseudoharengus</i>	Alewife - marine district population	Unknown
Marine fish	American eel	<i>Anguilla rostrata</i>	American eel	Decreasing
Marine fish	American shad	<i>Alosa sapidissima</i>	American shad	Stable
Marine fish	Atlantic silverside	<i>Menidia menidia</i>	Estuarine forage species	Unknown
Marine fish	Atlantic sturgeon	<i>Acipenser oxyrinchus</i>	Atlantic sturgeon	Unknown
Marine fish	Atlantic tomcod	<i>Microgadus tomcod</i>	Tomcod	Unknown
Marine fish	Bay anchovy	<i>Anchoa mitchilli</i>	Estuarine migratory pelagic	Unknown
Marine fish	Blueback herring	<i>Alosa aestivalis</i>	Blueback herring	Unknown
Marine fish	Common pipefish	<i>Syngnathus fuscus</i>	Estuarine associates of SAV	Unknown
Marine fish	Cunner	<i>Tautoglabrus adspersus</i>	Labrids	Unknown
Marine fish	Fourspine stickleback	<i>Apeltes quadricus</i>	Estuarine associates of SAV	Unknown
Marine fish	Inland silverside	<i>Menidia beryllina</i>	Estuarine forage species	Unknown
Marine fish	Lined seahorse	<i>Hippocampus erectus</i>	Estuarine associates of SAV	Unknown
Marine fish	Menhaden	<i>Brevoortia tyrannus</i>	Estuarine migratory pelagic	Unknown
Marine fish	Mummichog	<i>Fundulus heteroclitus</i>	Estuarine forage species	Unknown
Marine fish	N. American ninespine stickleback	<i>Pungitius pungitius occidentalis</i>	Estuarine associates of SAV	Unknown
Marine fish	Northern puffer	<i>Spherooides maculatus</i>	Northern puffer	Unknown
Marine fish	Oyster toadfish	<i>Opsanus tau</i>	Oyster toadfish	Decreasing
Marine fish	Rainbow smelt	<i>Osmerus mordax</i>	Rainbow smelt	Decreasing
Marine fish	Shortnose sturgeon	<i>Acipenser brevirostrum</i>	Shortnose sturgeon	Stable
Marine fish	Spotfin killifish	<i>Fundulus luciae</i>	Estuarine forage species	Unknown
Marine fish	Striped killifish	<i>Fundulus majalis</i>	Estuarine forage species	Unknown
Marine fish	Tautog	<i>Tautoga onitis</i>	Labrids	Unknown
Marine fish	Threespine stickleback	<i>Gasterosteus aculeatus</i>	Estuarine associates of SAV	Unknown
Marine fish	Winter flounder	<i>Pseudopleuronectes americanus</i>	Winter flounder	Decreasing
Mollusk	Bay scallop	<i>Argopecten irradians</i>	Bay scallop	Decreasing
Mollusk	Eastern pearlshell	<i>Margaritifera margaritifera</i>	Freshwater bivalves	Unknown
Mollusk	Hard clam	<i>Mercenaria mercenaria</i>	Hard clam	Decreasing
Mollusk	Mytilus edulis	<i>Blue mussel</i>	Blue mussel	Unknown
Mollusk	Oyster	<i>Crassostrea virginica</i>	Eastern oyster	Decreasing
Mollusk	Ribbed mussel	<i>Geukensia demissa</i>	Ribbed mussel	Unknown

Lower Hudson-Long Island Bays Table 5. SGCN that historically occurred in Lower Hudson - Long Island Bays Basin, but are now believed to be extirpated from the basin.

Taxa Group	Species	Scientific Name	Species Group
Bird	Blue-winged teal	<i>Anas discors</i>	Breeding waterfowl
Bird	Greater yellowlegs	<i>Tringa melanoleuca</i>	Transient shorebirds
Bird	Loggerhead shrike	<i>Lanius ludovicianus</i>	Loggerhead Shrike
Bird	Louisiana waterthrush	<i>Seiurus motacilla</i>	Deciduous/mixed forest breeding birds
Bird	Scarlet tanager	<i>Piranga olivacea</i>	Deciduous/mixed forest breeding birds
Bird	Sedge wren	<i>Cistothorus platensis</i>	Grassland birds
Crustacea/Meristomata	Piedmont groundwater amphipod	<i>Stygobromus tenuis tenuis</i>	Freshwater crustacea
Freshwater fish	Comely shiner	<i>Notropis amoenus</i>	Comely shiner
Freshwater fish	Ironcolor shiner	<i>Notropis chalybaeus</i>	Ironcolor shiner
Freshwater fish	Mud sunfish	<i>Acantharchus pomotis</i>	Extirpated Fishes
Herpetofauna	Queen snake	<i>Regina septemvittata</i>	Lake/river reptiles
Insect	A mayfly	<i>Procloeon simile</i>	Stoneflies/Mayflies of uncertain habitat
Insect	A tiger beetle	<i>Cicindela abdominalis</i>	Pine barrens tiger beetles
Insect	A tiger beetle	<i>Cicindela unipunctata</i>	Pine barrens tiger beetles
Insect	A tiger beetle	<i>Cicindela patruela</i>	Pine barrens tiger beetles
Insect	A tussock moth	<i>Orgyia detrita</i>	Other moths
Insect	American burying beetle	<i>Nicrophorus americanus</i>	American burying beetle
Insect	Appalachian jewelwing	<i>Calopteryx angustipennis</i>	Odonates of rivers/streams
Insect	Barrens dagger moth	<i>Acrionicta albarufa</i>	Other moths
Insect	Bay underwing	<i>Catocala badia</i>	Other moths
Insect	Brook snaketail	<i>Ophiogomphus aspersus</i>	Odonates of rivers/streams
Insect	Common sanddragon	<i>Progomphus obscurus</i>	Odonates of rivers/streams
Insect	Culvers root borer	<i>Papaipema sciata</i>	Other moths
Insect	Doll's merolonche	<i>Merolonche dolli</i>	Other moths
Insect	Jair underwing	<i>Catocala jair</i>	Other moths
Insect	Karner blue	<i>Lycaeides melissa samuelis</i>	Karner blue butterfly
Insect	Melsheimer's sack bearer	<i>Cicinnus melsheimeri</i>	Other moths
Insect	Northeastern beach tiger beetle	<i>Cicindela dorsalis dorsalis</i>	Beach tiger beetles
Insect	Northern metalmark	<i>Calephelis borealis</i>	Other butterflies
Insect	Pale green pinion moth	<i>Lithophane viridipallens</i>	Other moths
Insect	Regal moth	<i>Citheronia regalis</i>	Other moths
Insect	Russet-tipped clubtail	<i>Stylurus plagiatu</i>	Odonates of rivers/streams
Insect	Sparkling jewelwing	<i>Calopteryx dimidiata</i>	Odonates of rivers/streams
Insect	Sylvan hygrotus diving beetle	<i>Hygrotus sylvanus</i>	Sylvan hygrotus diving beetle

Lower Hudson-Long Island Bays Table 5. (continued)

Taxa Group	Species	Scientific Name	Species Group
Insect	The consort underwing	<i>Catocala consors sorsconi</i>	Other moths
Insect	Toothed apharetra	<i>Apharetra dentata</i>	Other moths
Insect	Yellow stoneroot borer	<i>Papaipema astuta</i>	Other moths
Mammal	Eastern cougar	<i>Felis concolor cougar</i>	Extirpated large mammals
Mammal	Gray wolf	<i>Canis lupus</i>	Extirpated large mammals
			Small mammals of uncertain/questionable residency
Mammal	Least shrew	<i>Cryptotis parva</i>	residency
Mammal	Silver-haired bat	<i>Lasionycteris noctivagans</i>	Tree bats
Mollusk	Black sandshell	<i>Ligumia recta</i>	Freshwater bivalves
Mollusk	Lance aplexa	<i>Aplexa elongata</i>	Freshwater gastropods
Mollusk	Tidewater mucket	<i>Leptodea ochracea</i>	Freshwater bivalves

Lower Hudson-Long Island Bays Table 6. Lower Hudson - Long Island Bays species diversity relative to the total number of SGCN statewide.

Taxa Group	# Species Groups	# Species	Total # Spp	% of Total Spp for this Group
BIRDS	16	89	118	75.4
Bald Eagle		1		
Barn Owl		1		
Beach and Island Ground Nesting Birds		6	7	85.7
Breeding Waterfowl		2	4	50.0
Colonial-Nesting Herons		8	8	100.0
Common Nighthawk		1		
Deciduous/Mixed Forest Breeding Birds		7	9	77.8
Early Successional Forest/Shrubland Birds		12	12	100.0
Forest Breeding Raptors		5	6	83.3
Freshwater Marsh Nesting Birds		5	6	83.3
Grassland Birds		8	11	72.7
Osprey		1		
Peregrine Falcon		1		
Salt Marsh Breeding Birds		7	7	100.0
Transient Shorebirds		13	14	92.9
Wintering Waterbirds		11	19	57.9
CRUSTACEA	5	5	7	71.4
American Lobster		1		
Blue Crab		1		
Fiddler Crab		1		
Horseshoe Crab		1		
Zooplankton		1		
FRESHWATER FISH	3	3	40	7.5
Banded Sunfish		1		
Heritage-Strain Brook Trout		1		
Swamp Darter		1		
HERPETOFAUNA	12	32	44	72.7
Box Turtle		1		
Diamond-Backed Terrapin		1		
Eastern Spadefoot Toad		1		
Freshwater Wetland Amphibians		4	5	80.0
Lake-River Reptiles		2	5	40.0
Lizards		1	3	33.3
Sea Turtles		5	5	100.0
Snapping Turtle		1		
Stream Salamanders		1	2	50.0
Uncommon Turtles of Wetlands		4	5	80.0
Vernal Pool Salamanders		4	4	100.0
Woodland/Grassland Snakes		7	8	87.5

Lower Hudson-Long Island Bays Table 6. (continued)

Taxa Group	# Species Groups	# Species	Total # Spp	% of Total Spp for this Group
INSECT	10	62	197	31.5
Barrens Buckmoth		1		
Odonates of Bogs/Fens/Ponds		2	10	20.0
Odonates of Brackish Marshes/Lakes/Ponds		2	2	100.0
Odonates of Coastal Plain Lakes/Ponds		3	3	100.0
Odonates of Lakes/Ponds		4	5	80.0
Odonates of Rivers/Streams		1	19	5.3
Odonates of Seeps/Rivulets		3	4	75.0
Odonates of Small Forest Streams		2	3	66.7
Other Butterflies		11	18	61.1
Other Moths		33	92	35.9
MAMMAL	6	7	21	33.3
Allegheny Woodrat		1		
Furbearers		1	2	50.0
Game Species of Concern		1		
Indiana Bat		1		
Marine Mammals		1	7	14.3
Tree Bats		2	3	66.7
MARINE FISH	15	25	51	49.0
Alewife		1		
American Eel		1		
American Shad		1		
Atlantic Sturgeon		1		
Blueback Herring		1		
Estuarine Associates of SAV		5	5	100.0
Estuarine Forage Species		5	5	100.0
Estuarine Migratory Pelagic		2	2	100.0
Labrids		2	2	100.0
Northern Puffer		1		
Oyster Toadfish		1		
Rainbow Smelt		1		
Shortnose Sturgeon		1		
Tomcod		1		
Winter Flounder		1		
MOLLUSK	6	6	59	10.2
Bay Scallop		1		
Blue Mussel		1		
Eastern oyster		1		
Freshwater bivalves		1	39	2.6
Hard clam		1		
Ribbed mussel		1		
TOTAL	73	229	537	42.6
% of all spp groups statewide	57.0%			

Lower Hudson-Long Island Bays Table 7. Habitats listed as critical to SGCN found in the Atlantic Ocean Basin, described by habitat system and subsystem as adapted from Edinger *et al* (2002). The number of SGCN that use each system-subsystem association is also indicated.

System	Subsystem	# of Species
Terrestrial	open upland	57
Terrestrial	forested	53
Estuarine	intertidal	52
Palustrine	mineral soil wetland	46
Terrestrial	barrens/woodlands	45
Estuarine	shallow subtidal	40
Marine	deep subtidal	32
Riverine	coldwater stream	29
Terrestrial	coastal	24
Estuarine	deep subtidal	23
Marine	shallow subtidal	17
Lacustrine	warm water shallow	15
Terrestrial	maritime	15
Unknown	unknown	14
Lacustrine	cold water shallow	13
Riverine	unknown	13
Marine	intertidal	11
Riverine	warmwater stream	11
Palustrine	peatlands	10
Riverine	coastal plain stream	10
Lacustrine	coastal plain	8
Lacustrine	cold water deep	8
Lacustrine	unknown	7
Riverine	deepwater river	7
Estuarine	cultural	5
Estuarine	unknown	5
Lacustrine	warm water deep	4
Marine	unknown	4
Subterranean	natural	2
Terrestrial	unknown	2
Marine	cultural	1
Palustrine	unknown	1
Subterranean	cultural	1

Lower Hudson-Long Island Bays Table 8. Summary of threats, number of (and percent of all) species groups affected, and percentage of all threats for SGCN in the Lower Hudson-Long Island Bays Basin. For details on threats, see Appendix C: Threats Characterization for Wildlife and Their Habitats.

Threats	# of Species Groups Affected	% of All Threats in Basin
Multiple ^a	73	15.6
Habitat Loss - cultural	52	11.1
Contaminants	35	7.5
Degradation of water quality	34	7.3
Human Disturbance - illegal/unregulated harvest	29	6.2
Disturbed Predator/Prey Cycles	22	4.7
Human Disturbance - collisions	21	4.5
Barriers - dams, weirs, culverts, bridges	19	4.1
Interspecific Competition for Resources	18	3.8
Disease	14	3.0
Fragmentation of Habitat Types	11	2.4
Habitat Loss - natural	11	2.4
Sedimentation/Erosion	11	2.4
Competition from Invasives/Exotics	10	2.1
Human Disturbance - entanglement/entrainment	10	2.1
Climate change (aquatic)	10	2.1
Active Alteration of Natural Processes	8	1.7
Human Disturbance - general	7	1.5
Unsustainable Agricultural/Silvicultural Practices	7	1.5
Susceptibility to Stochastic Events - isolated pop'ns	7	1.5
Susceptibility to Stochastic Events - weather events	6	1.3
Altered Hydrology - water level mgmt/extraction	5	1.1
Habitat Patch Size Reduction	5	1.1
Loss of Habitat Connectivity	5	1.1
Loss of Streamside Buffers	4	0.9
Habitat Composition Altered by Invasive Species (terrestrial)	4	0.9
Altered Hydrology - natural processes	4	0.9
Habitat Composition Altered by Invasive Species (aquatic)	3	0.6
Detrimental Hybridization	3	0.6
Climate change (terrestrial)	3	0.6
Barriers - roads, development	2	0.4
Pollution - acid rain, soil contamination (terrestrial)	2	0.4
Habitat Composition Altered by Overuse - deer browse	2	0.4
Loss of Host Species	2	0.4
Parasites	2	0.4
Susceptibility to Stochastic Events - rare species	2	0.4
Unknown	2	0.4
Interspecific Competition - general	1	0.2
Habitat Composition Altered by Overuse - geese, swans	1	0.2
Negative Edge Effects	1	0.2

Lower Hudson-Long Island Bays Table 9. SGCN in the Lower Hudson - Long Island Bays Basin for which the Atlantic States Marine Fisheries Commission has management jurisdiction. Year of completion of the Fishery Management Plan (FMP) and most recent update is indicated.

Species	FMP Completion Date	Most Recent Update
American Eel	1999	N/A
American Lobster	1997	2005
Atlantic Menhaden	1981	2004
Atlantic Sturgeon	1990	2001
Horseshoe Crab	1998	2004
Shad and River Herring	1985	2002
Tautog	1996	2002
Winter Flounder	1992	1998

Source: www.asmfmc.org, list of Fishery Management Reports. Downloaded 5/9/05.