

Table 1. Species included in the Northeast Fisheries Climate Vulnerability Assessment. Assigned functional group, common name, and scientific name of the 82 fish and invertebrate species included in the Northeast Fisheries Climate Vulnerability Assessment.

Group	Common Name	Scientific Name
Coastal Fish	Atlantic Croaker	<i>Micropogonias undulates</i>
Coastal Fish	Atlantic Menhaden	<i>Brevoortia tyrannus</i>
Coastal Fish	Black Sea Bass	<i>Centropristis striata</i>
Coastal Fish	Northern Kingfish	<i>Menticirrhus saxatilis</i>
Coastal Fish	Red Drum	<i>Sciaenops ocellatus</i>
Coastal Fish	Scup	<i>Stenotomus chrysops</i>
Coastal Fish	Spanish Mackerel	<i>Scomberomorus maculatus</i>
Coastal Fish	Spot	<i>Leiostomus xanthurus</i>
Coastal Fish	Spotted Seatrout	<i>Cynoscion nebulosus</i>
Coastal Fish	Striped Bass	<i>Morone saxatilis</i>
Coastal Fish	Summer Flounder	<i>Paralichthys dentatus</i>
Coastal Fish	Tautog	<i>Tautoga onitis</i>
Coastal Fish	Weakfish	<i>Cynoscion regalis</i>
Coastal Fish	Winter Flounder	<i>Pseudopleuronectes americanus</i>
Diadromous Fish	Alewife	<i>Alosa pseudoharengus</i>
Diadromous Fish	Conger Eel	<i>Anguilla oceanica</i>
Diadromous Fish	American Eel	<i>Anguilla rostrata</i>
Diadromous Fish	American Shad	<i>Alosa sapidissima</i>
Diadromous Fish	Atlantic Salmon	<i>Salmo salar</i>
Diadromous Fish	Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>
Diadromous Fish	Blueback Herring	<i>Alosa aestivalis</i>
Diadromous Fish	Hickory Shad	<i>Alosa mediocris</i>
Diadromous Fish	Rainbow Smelt	<i>Osmerus mordax</i>
Diadromous Fish	Shortnose Sturgeon	<i>Acipenser brevirostrum</i>
Elasmobranchs	Barndoor Skate	<i>Dipturus laevis</i>
Elasmobranchs	Clearnose Skate	<i>Raja eglanteria</i>
Elasmobranchs	Dusky Shark	<i>Carcharhinus obscurus</i>
Elasmobranchs	Little Skate	<i>Leucoraja erinacea</i>
Elasmobranchs	Porbeagle	<i>Lamna nasus</i>
Elasmobranchs	Rosette Skate	<i>Leucoraja garmani</i>
Elasmobranchs	Sand Tiger	<i>Carcharias taurus</i>
Elasmobranchs	Smooth Dogfish	<i>Mustelus canis</i>
Elasmobranchs	Smooth Skate	<i>Malacoraja senta</i>
Elasmobranchs	Spiny Dogfish	<i>Squalus acanthias</i>
Elasmobranchs	Thorny Skate	<i>Amblyraja radiata</i>
Elasmobranchs	Winter Skate	<i>Leucoraja ocellata</i>
Groundfish	Acadian Redfish	<i>Sebastes fasciatus</i>
Groundfish	American Plaice	<i>Hippoglossoides platessoides</i>
Groundfish	Atlantic Cod	<i>Gadus morhua</i>
Groundfish	Atlantic Hagfish	<i>Myxine glutinosa</i>
Groundfish	Atlantic Halibut	<i>Hippoglossus hippoglossus</i>
Groundfish	Atlantic Wolffish	<i>Anarhichas lupus</i>
Groundfish	Cusk	<i>Brosme brosme</i>
Groundfish	Haddock	<i>Melanogrammus aeglefinus</i>
Groundfish	Monkfish (Goosefish)	<i>Lophius americanus</i>
Groundfish	Ocean Pout	<i>Zoarces americanus</i>

(Continued)

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Group	Common Name	Scientific Name
Groundfish	Offshore Hake	<i>Merluccius albidus</i>
Groundfish	Pollock	<i>Pollachius virens</i>
Groundfish	Red Hake	<i>Urophycis chuss</i>
Groundfish	Silver Hake	<i>Merluccius bilinearis</i>
Groundfish	Tilefish	<i>Lopholatilus chamaeleonticeps</i>
Groundfish	White Hake	<i>Urophycis tenuis</i>
Groundfish	Windowpane	<i>Scophthalmus aquosus</i>
Groundfish	Witch Flounder	<i>Glyptocephalus cynoglossus</i>
Groundfish	Yellowtail Flounder	<i>Limanda ferruginea</i>
Pelagic Fish and Cephalopods	Anchovies	<i>Anchoa hepsetus</i> / <i>Anchoa mitchilli</i>
Pelagic Fish and Cephalopods	Atlantic Herring	<i>Clupea harengus</i>
Pelagic Fish and Cephalopods	Atlantic Mackerel	<i>Scomber scombrus</i>
Pelagic Fish and Cephalopods	Atlantic Saury	<i>Scomberesox saurus</i>
Pelagic Fish and Cephalopods	Bluefish	<i>Pomatomus saltatrix</i>
Pelagic Fish and Cephalopods	Butterfish	<i>Peprilus triacanthus</i>
Pelagic Fish and Cephalopods	Longfin Inshore Squid	<i>Doryteuthis pealeii</i>
Pelagic Fish and Cephalopods	Sand Lances	<i>Ammodytes americanus</i> & <i>Ammodytes dubius</i>
Pelagic Fish and Cephalopods	Northern Shortfin Squid	<i>Illex illecebrosus</i>
Benthic Invertebrates	American Lobster	<i>Homarus americanus</i>
Benthic Invertebrates	Atlantic Sea Scallop	<i>Placopecten magellanicus</i>
Benthic Invertebrates	Atlantic Surfclam	<i>Spisula solidissima</i>
Benthic Invertebrates	Bay Scallop	<i>Argopecten irradians</i>
Benthic Invertebrates	Bloodworm	<i>Glycera dibranchiata</i>
Benthic Invertebrates	Blue Crab	<i>Callinectes sapidus</i>
Benthic Invertebrates	Blue Mussel	<i>Mytilus edulis</i>
Benthic Invertebrates	Cancer Crabs	<i>Cancer borealis</i> / <i>Cancer irroratus</i>
Benthic Invertebrates	Channeled Whelk	<i>Busycotypus canaliculatus</i>
Benthic Invertebrates	Deep-sea Red Crab	<i>Chaceon quinque-dens</i>
Benthic Invertebrates	Eastern Oyster	<i>Crassostrea virginica</i>
Benthic Invertebrates	Green Sea Urchin	<i>Strongylocentrotus droebachiensis</i>
Benthic Invertebrates	Horseshoe Crab	<i>Limulus polyphemus</i>
Benthic Invertebrates	Knobbed Whelk	<i>Busycon carica</i>
Benthic Invertebrates	Northern Shrimp	<i>Pandalus borealis</i>
Benthic Invertebrates	Ocean Quahog	<i>Arctica islandica</i>
Benthic Invertebrates	Northern Quahog	<i>Mercenaria mercenaria</i>
Benthic Invertebrates	Softshell Clam	<i>Mya arenaria</i>

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Ocean currents were also used as a factor since most marine organisms have planktonic early life stages that rely on advection for transport to habitats necessary for the continuation of the life cycle [58]. Small-scale changes in currents cannot be assessed from the current global climate models, but changes in large scale changes can be considered. Sea-level rise threatens a variety of coastal habitats including marshes, seagrass beds, and beaches [59, 60]. This threat is exacerbated by the large degree of coastal development in the Northeast U.S. Shelf [61] and the large reliance of fish and invertebrate species on coastal habitats during portions of their life history [46].

Sensitivity Attributes. Sensitivity attributes represent biological traits that are indicative of an ability or inability of a species to respond to environmental change. All 12 attributes