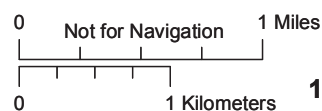


**Map 12A**  
**Hudson River**



**SEE BACK OF MAP**  
for details about mapped species and other  
species that occur in the mapped area.  
Data Published: February 2016



**1:50,000**



# Map 12A Hudson River

## BIOLOGICAL RESOURCES

Note: An asterisk (\*) indicates that life stage occurs in this range but not in all months included

### DISPLAYED ON MAP

#### BENTHIC

|  | Subelement | Species      | Mapping Qualifier     | S | F | Concentration | Monthly Presence |   |   |   |   |   |   |   |   |   |   |   |
|--|------------|--------------|-----------------------|---|---|---------------|------------------|---|---|---|---|---|---|---|---|---|---|---|
|  |            |              |                       |   |   |               | J                | F | M | A | M | J | J | A | S | O | N | D |
|  | SAV        | Water celery | High Ecological Value |   |   | Present       |                  |   |   |   |   |   |   |   |   |   |   | - |
|  | SAV        | Water celery | High Ecological Value |   |   | Potential     |                  |   |   |   |   |   |   |   |   |   |   | - |

#### BIRDS

| Map ID | Subelement | Species             | Mapping Qualifier    | S   | F | Concentration | Monthly Presence |   |   |   |   |   |   |   |   |   |   |   | Nest    | Mig.(S) | Mig.(F) | Molt |
|--------|------------|---------------------|----------------------|-----|---|---------------|------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---------|---------|------|
|        |            |                     |                      |     |   |               | J                | F | M | A | M | J | J | A | S | O | N | D |         |         |         |      |
| 197    | Raptor     | Endangered raptor 2 | Nesting              | T/E |   | 1 Pair        |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-Jul | -       | -       | -    |
| 199    | Raptor     | Northern harrier    | General Distribution | T/E |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Aug | -       | -       | -    |
|        | Raptor     | Osprey              | General Distribution | C/- |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Aug | -       | -       | -    |
|        | Wading     | American bittern    | General Distribution | C/E |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | May-Aug | -       | -       | -    |
|        | Wading     | King rail           | General Distribution | T/- |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-Aug | -       | -       | -    |
|        | Wading     | Least bittern       | General Distribution | T/C |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Sep | -       | -       | -    |
|        | Wading     | Little blue heron   | General Distribution | -/C |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | -       | -    |
|        | Waterfowl  | Waterfowl           | Migration            |     |   | High          |                  |   |   |   |   |   |   |   |   |   |   |   | -       | Mar-Apr | Oct-Nov | -    |
| 200    | Wading     | American bittern    | General Distribution | C/E |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | May-Aug | -       | -       | -    |
|        | Wading     | Least bittern       | General Distribution | T/C |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Sep | -       | -       | -    |

#### FISH

| Map ID | Subelement        | Species            | Mapping Qualifier    | S   | F | Concentration | Monthly Presence |   |   |   |   |   |   |   |   |   |   |   | Spawn   | Eggs    | Larvae  | Juveniles | Adults  |
|--------|-------------------|--------------------|----------------------|-----|---|---------------|------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---------|---------|-----------|---------|
|        |                   |                    |                      |     |   |               | J                | F | M | A | M | J | J | A | S | O | N | D |         |         |         |           |         |
| 418    | Diadromous        | Atlantic sturgeon  | General Distribution | -/E | E | -             |                  |   |   |   |   |   |   |   |   |   |   |   | May-Jul | May-Jul | May-Jul | Aug-Oct   | May-Jul |
|        | Diadromous        | Shortnose sturgeon | General Distribution | E/E | E | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-May | Mar-May | May-Jul | Jun-Oct   | Mar-May |
| 420    | Diadromous        | Alewife            | Nursery Area         |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | May-Jun | Jun-Oct   | -       |
|        | Diadromous        | Alewife            | Spawning Area        |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jun | Apr-Jun | -       | -         | Apr-Jun |
|        | Diadromous        | Blueback herring   | Nursery Area         |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | May-Jun | Jun-Oct   | -       |
|        | Diadromous        | Blueback herring   | Spawning Area        |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jun | Apr-Jun | -       | -         | Apr-Jun |
| 423    | Diadromous        | American shad      | Nursery Area         |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | May-Jun | Jun-Oct   | -       |
|        | Diadromous        | American shad      | Spawning Area        |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jun | Apr-Jun | -       | -         | Apr-Jun |
| 424    | Diadromous        | Alewife            | Nursery Area         |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | May-Jun | Jun-Oct   | -       |
|        | Diadromous        | Alewife            | Spawning Area        |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jun | Apr-Jun | -       | -         | Apr-Jun |
|        | Diadromous        | Blueback herring   | Nursery Area         |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | May-Jun | Jun-Oct   | -       |
|        | Diadromous        | Blueback herring   | Spawning Area        |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jun | Apr-Jun | -       | -         | Apr-Jun |
|        | Estuarine Nursery | White perch        | Spawning Area        |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jul | Apr-Jul | -       | -         | Apr-Jul |
|        | Freshwater        | Smallmouth bass    | Nursery Area         |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | Jun-Aug | Jan-Dec   | -       |
|        | Freshwater        | Smallmouth bass    | Spawning Area        |     |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | May-Jun | May-Jul | -       | -         | May-Aug |
| 425    | Diadromous        | Atlantic sturgeon  | General Distribution | -/E | E | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | -       | May-Oct   | May-Jul |
|        | Diadromous        | Shortnose sturgeon | General Distribution | E/E | E | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-May | Mar-May | May-Jul | Jul-Sep   | Mar-Sep |

## FISH (continued)

| Map ID | Subelement        | Species         | Mapping Qualifier | S | F | Concentration | Monthly Presence |   |   |   |   |   |   |   |   |   |   |   | Spawn   | Eggs    | Larvae  | Juveniles | Adults  |
|--------|-------------------|-----------------|-------------------|---|---|---------------|------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---------|---------|-----------|---------|
|        |                   |                 |                   |   |   |               | J                | F | M | A | M | J | J | A | S | O | N | D |         |         |         |           |         |
| 426    | Estuarine Nursery | White perch     | Spawning Area     |   |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jul | Apr-Jul | -       | -         | Apr-Jul |
| 427    | Freshwater        | Smallmouth bass | Nursery Area      |   |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | Jun-Aug | Jan-Dec   | -       |
|        | Freshwater        | Smallmouth bass | Spawning Area     |   |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | May-Jun | May-Jul | -       | -         | May-Aug |
| 428    | Freshwater        | Largemouth bass | Nursery Area      |   |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | Jun-Aug | Jan-Dec   | -       |
|        | Freshwater        | Largemouth bass | Spawning Area     |   |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | May-Jun | May-Jul | -       | -         | May-Aug |
|        | Freshwater        | Smallmouth bass | Nursery Area      |   |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -       | -       | Jun-Aug | Jan-Dec   | -       |
|        | Freshwater        | Smallmouth bass | Spawning Area     |   |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | May-Jun | May-Jul | -       | -         | May-Aug |

## HABITATS & RARE PLANTS





| Map ID | Subelement | Species          | Mapping Qualifier     | S   | F | Concentration | Monthly Presence |   |   |   |   |   |   |   |   |   |   |   | Spawn | Eggs | Larvae | Juveniles | Adults |
|--------|------------|------------------|-----------------------|-----|---|---------------|------------------|---|---|---|---|---|---|---|---|---|---|---|-------|------|--------|-----------|--------|
|        |            |                  |                       |     |   |               | J                | F | M | A | M | J | J | A | S | O | N | D |       |      |        |           |        |
| 520    | Plant      | Endangered plant | Vulnerable Occurrence | E/E |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -     | -    | -      | -         | -      |
| 523    | Plant      | Threatened plant | Vulnerable Occurrence | T/- |   | -             |                  |   |   |   |   |   |   |   |   |   |   |   | -     | -    | -      | -         | -      |

## INVERTEBRATES






| Map ID | Subelement | Species          | Mapping Qualifier  | S | F | Concentration | Monthly Presence |   |   |   |   |   |   |   |   |   |   |   | Spawn   | Eggs    | Larvae  | Juveniles | Adults  |
|--------|------------|------------------|--------------------|---|---|---------------|------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---------|---------|-----------|---------|
|        |            |                  |                    |   |   |               | J                | F | M | A | M | J | J | A | S | O | N | D |         |         |         |           |         |
| 657    | Bivalve    | Alewife floater  | Concentration Area |   |   | .01-0.1/M2    |                  |   |   |   |   |   |   |   |   |   |   |   | Aug-Sep | Aug-May | May-Jun | Jan-Dec   | Jan-Dec |
|        | Bivalve    | Eastern elliptio | Concentration Area |   |   | 10-20/M2      |                  |   |   |   |   |   |   |   |   |   |   |   | Aug-Sep | Aug-May | May-Jun | Jan-Dec   | Jan-Dec |
|        | Bivalve    | Tidewater mucket | Concentration Area |   |   | .01-0.1/M2    |                  |   |   |   |   |   |   |   |   |   |   |   | Aug-Sep | Aug-May | May-Jun | Jan-Dec   | Jan-Dec |

## ALSO PRESENT IN MAPPED AREA (GENERAL DISTRIBUTION)


## BIRDS

|                                                                                    | Subelement | Species           |  | Monthly Presence |   |   |   |   |   |   |   |   |   |   |   | Nest    | Mig.(S) | Mig.(F) | Molt |
|------------------------------------------------------------------------------------|------------|-------------------|--|------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---------|---------|------|
|                                                                                    |            |                   |  | J                | F | M | A | M | J | J | A | S | O | N | D |         |         |         |      |
|    | Passerine  | Belted kingfisher |  |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Aug | -       | -       | -    |
|                                                                                    |            | Marsh wren        |  |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Aug | -       | -       | -    |
|                                                                                    |            | Swamp sparrow     |  |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Sep | -       | -       | -    |
|  | Shorebird  | Common snipe      |  |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Jul | -       | -       | -    |
|  | Wading     | Hérons            |  |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-Sep | -       | -       | -    |
|                                                                                    |            | Virginia rail     |  |                  |   |   |   |   |   |   |   |   |   |   |   | Apr-Sep | -       | -       | -    |
|  | Waterfowl  | Canada goose      |  |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-Jun | -       | -       | -    |
|                                                                                    |            | Common moorhen    |  |                  |   |   |   |   |   |   |   |   |   |   |   | May-Sep | -       | -       | -    |
|                                                                                    |            | Mallard           |  |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-Sep | -       | -       | -    |
|                                                                                    |            | Wood duck         |  |                  |   |   |   |   |   |   |   |   |   |   |   | Mar-Sep | -       | -       | -    |

## FISH

|                                                                                  | <i>Subelement</i>  | <i>Species</i>   | <i>Monthly Presence</i> |          |          |          |          |          |          |          |          |          |          |          | <i>Spawn</i> | <i>Eggs</i> | <i>Larvae</i> | <i>Juveniles</i> | <i>Adults</i> |
|----------------------------------------------------------------------------------|--------------------|------------------|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|-------------|---------------|------------------|---------------|
|                                                                                  |                    |                  | <i>J</i>                | <i>F</i> | <i>M</i> | <i>A</i> | <i>M</i> | <i>J</i> | <i>J</i> | <i>A</i> | <i>S</i> | <i>O</i> | <i>N</i> | <i>D</i> |              |             |               |                  |               |
|  | Diadromous         | Alewife          |                         |          |          |          |          |          |          |          |          |          |          |          | Apr-Jun      | Apr-Jun     | May-Jun       | Jun-Oct          | Apr-Jun       |
|                                                                                  |                    | American eel     |                         |          |          |          |          |          |          |          |          |          |          |          | -            | -           | -             | Jan-Dec          | Sep-Nov       |
|                                                                                  |                    | American shad    |                         |          |          |          |          |          |          |          |          |          |          |          | Apr-Jun      | Apr-Jun     | May-Jun       | Jun-Oct          | Apr-Jun       |
|                                                                                  |                    | Blueback herring |                         |          |          |          |          |          |          |          |          |          |          |          | Apr-Jun      | Apr-Jun     | May-Jun       | Jun-Oct          | Apr-Jun       |
|                                                                                  |                    | Striped bass     |                         |          |          |          |          |          |          |          |          |          |          |          | Apr-Jun      | Apr-Jun     | May-Jul       | Jul-Oct          | Mar-Oct       |
|                                                                                  |                    | Striped bass     |                         |          |          |          |          |          |          |          |          |          |          |          | -            | -           | -             | Jul-Oct          | Mar-Oct       |
|  | Estuarine Nursery  | White perch      |                         |          |          |          |          |          |          |          |          |          |          |          | Apr-Jul      | Apr-Jul     | Apr-Jul       | Jan-Dec          | Jan-Dec       |
|  | Estuarine Resident | Killifish        |                         |          |          |          |          |          |          |          |          |          |          |          | May-Aug      | May-Aug     | May-Aug       | Jan-Dec          | Jan-Dec       |
|                                                                                  |                    | Silversides      |                         |          |          |          |          |          |          |          |          |          |          |          | May-Aug      | May-Aug     | May-Aug       | Jan-Dec          | Jan-Dec       |
|  | Freshwater         | Largemouth bass  |                         |          |          |          |          |          |          |          |          |          |          |          | May-Jun      | May-Jul     | Jun-Aug       | Jan-Dec          | Jan-Dec       |
|                                                                                  |                    | Smallmouth bass  |                         |          |          |          |          |          |          |          |          |          |          |          | May-Jun      | May-Jul     | Jun-Aug       | Jan-Dec          | Jan-Dec       |
|                                                                                  |                    | Walleye          |                         |          |          |          |          |          |          |          |          |          |          |          | Mar-Apr      | Mar-May     | Apr-Jul       | Jan-Dec          | Jan-Dec       |
|                                                                                  |                    | Yellow perch     |                         |          |          |          |          |          |          |          |          |          |          |          | Apr-Jun      | Apr-Jun     | Apr-Jun       | Jan-Dec          | Jan-Dec       |
|  | Marine Benthic     | Atlantic tomcod  |                         |          |          |          |          |          |          |          |          |          |          |          | Dec-Mar      | Dec-Mar     | Dec-Jun       | Jan-Dec          | Oct-Apr       |






## REPTILES & AMPHIBIANS

|                                                                                  | <i>Subelement</i> | <i>Species</i>    | <i>Monthly Presence</i> |          |          |          |          |          |          |          |          |          |          |          | <i>Nest</i> | <i>Hatch</i> | <i>Internest</i> | <i>Juveniles</i> | <i>Adults</i> |
|----------------------------------------------------------------------------------|-------------------|-------------------|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|--------------|------------------|------------------|---------------|
|                                                                                  |                   |                   | <i>J</i>                | <i>F</i> | <i>M</i> | <i>A</i> | <i>M</i> | <i>J</i> | <i>J</i> | <i>A</i> | <i>S</i> | <i>O</i> | <i>N</i> | <i>D</i> |             |              |                  |                  |               |
|  | Turtle            | Common map turtle |                         |          |          |          |          |          |          |          |          |          |          |          | -           | -            | -                | Apr-Oct          | Apr-Oct       |
|                                                                                  |                   | Painted turtle    |                         |          |          |          |          |          |          |          |          |          |          |          | -           | -            | -                | Mar-Nov          | Mar-Nov       |








For additional information about species locations and extent, reference the underlying GIS data available from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

## SHORELINE RESOURCES

### ESI POLYGON HABITAT TYPES

|                                                                                  | <i>ESI Rank</i> | <i>Habitat Classification</i> | <i>Area (Acres)</i> | <i>Area (Sq. Miles)</i> |
|----------------------------------------------------------------------------------|-----------------|-------------------------------|---------------------|-------------------------|
|  | 10B             | Freshwater Marshes            | 440.49              | 0.69                    |
|  | 10C             | Swamps                        | 1,084.11            | 1.69                    |
|  | 10D             | Scrub and Shrub Wetlands      | 88.59               | 0.14                    |
|  | 9A              | Sheltered Tidal Flats         | 16.06               | 0.03                    |
|  | 7               | Exposed Tidal Flats           | 52.92               | 0.08                    |

### ESI SHORELINE HABITAT TYPES

|                                                                                  | <i>ESI Rank</i> | <i>Shoreline Habitat Classification</i> | <i>Length (Meters)</i> | <i>Length (Miles)</i> | <i>% of ESI Shoreline</i> |
|----------------------------------------------------------------------------------|-----------------|-----------------------------------------|------------------------|-----------------------|---------------------------|
|  | 10B             | Freshwater Marshes                      | 4,632.31               | 2.88                  | 4%                        |
|  | 10C             | Swamps                                  | 10,560.78              | 6.56                  | 9%                        |
|  | 10D             | Scrub and Shrub Wetlands                | 40.69                  | 0.03                  | < 1%                      |
|  | 9A              | Sheltered Tidal Flats                   | 2,089.29               | 1.30                  | 2%                        |
|  | 9B              | Vegetated Low Banks                     | 76,809.63              | 47.73                 | 64%                       |
|  | 8A              | Sheltered, Impermeable, Rocky Shores    | 272.22                 | 0.17                  | < 1%                      |
|  | 8B              | Sheltered, Solid Man-Made Structures    | 6,930.75               | 4.31                  | 6%                        |
|  | 8C              | Sheltered Riprap                        | 10,811.35              | 6.72                  | 9%                        |
|  | 7               | Exposed Tidal Flats                     | 4,606.38               | 2.86                  | 4%                        |
|  | 6A              | Gravel Beaches                          | 480.45                 | 0.30                  | < 1%                      |
|  | 5               | Mixed Sand and Gravel Beaches           | 1,499.13               | 0.93                  | 1%                        |
|  | 4               | Coarse Grained Sand Beaches             | 1,945.66               | 1.21                  | 2%                        |

|                      |            |                      |       |
|----------------------|------------|----------------------|-------|
| Total ESI Shoreline: | 120,678.64 | Total ESI Shoreline: | 74.99 |
| Total Shoreline:     | 89,859.01  | Total Shoreline:     | 55.84 |

Note: A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats may exceed the length of the mapped shoreline, and the percent of ESI shoreline values will sum to greater than 100%

All underlying GIS data can be obtained from [response.restoration.noaa.gov](https://response.restoration.noaa.gov)

