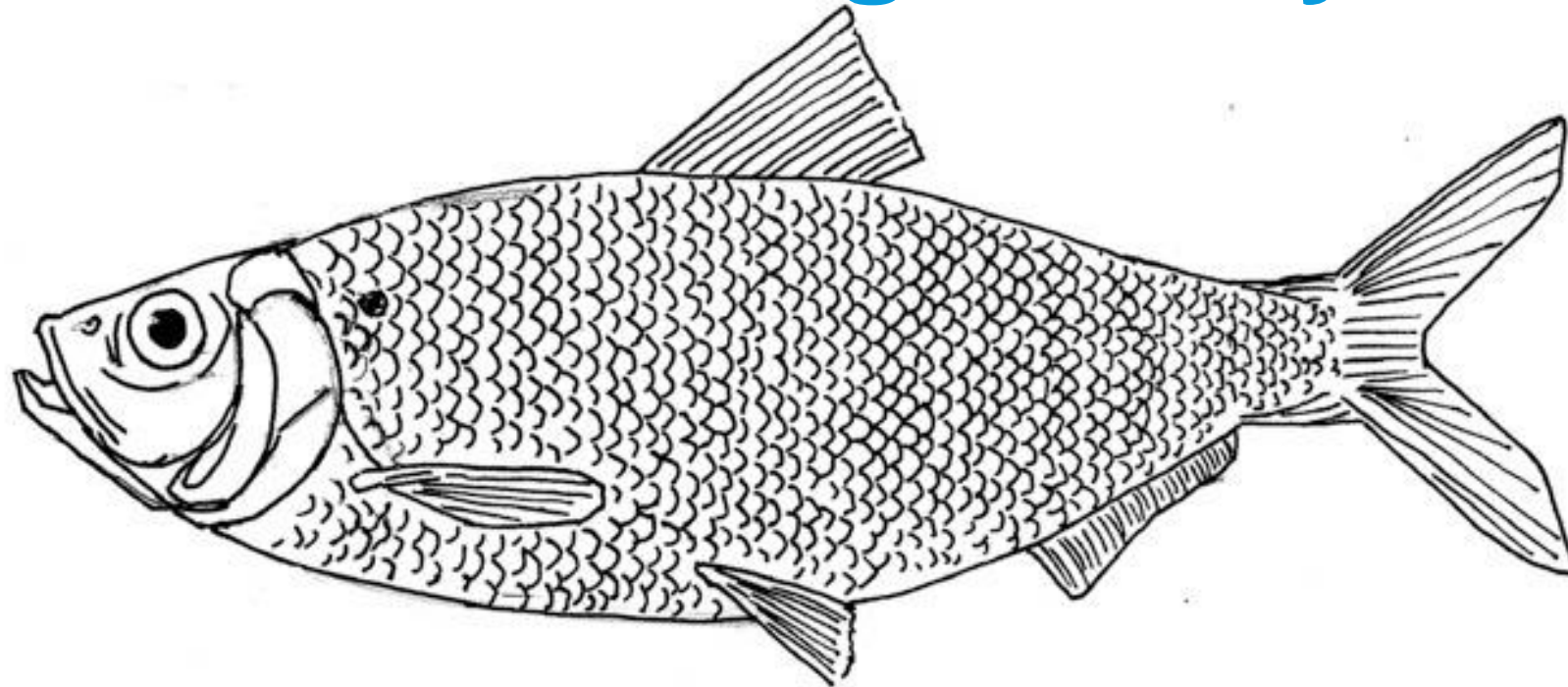


2020 Long Island Volunteer River Herring Survey



Alewife (*Alosa pseudoharengus*)



Department of
Environmental
Conservation

OVERVIEW

1. Background on River Herring
2. Efforts to Restore Critical River Herring Habitat
3. Volunteer Monitoring Program
4. Monitoring Site Selection

DIADROMOUS

THROUGH RUNNING

Fish that migrate between
fresh and salt water

CATADROMOUS

DOWN RUNNING

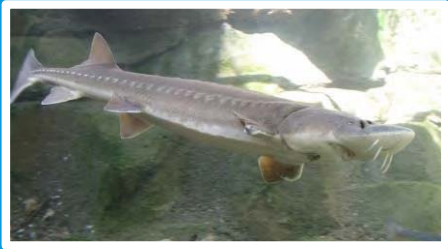
American Eel



Fish that spend most of their lives in fresh water and migrate to sea to breed

ANADROMOUS

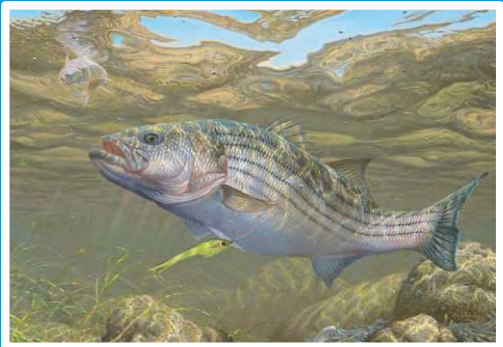
UP RUNNING



Atlantic Sturgeon



American
Shad



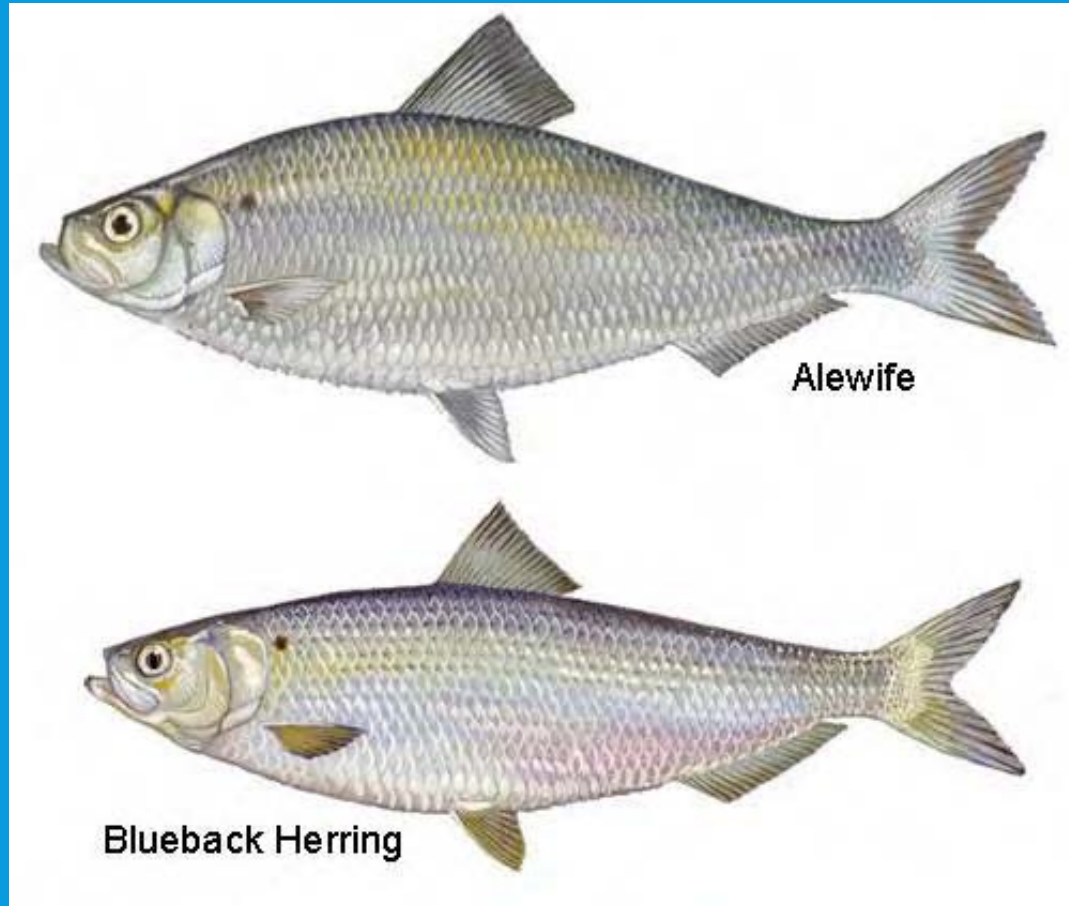
Striped Bass



River Herring

Fish that spend most of their lives at sea and migrate to fresh water to breed

RIVER HERRING

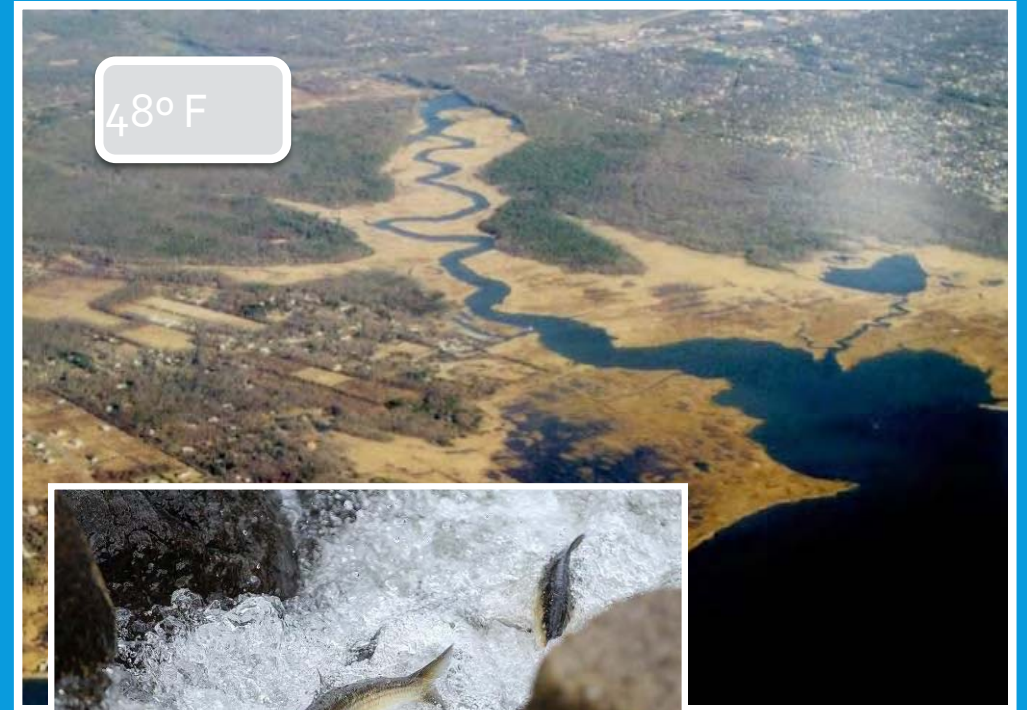
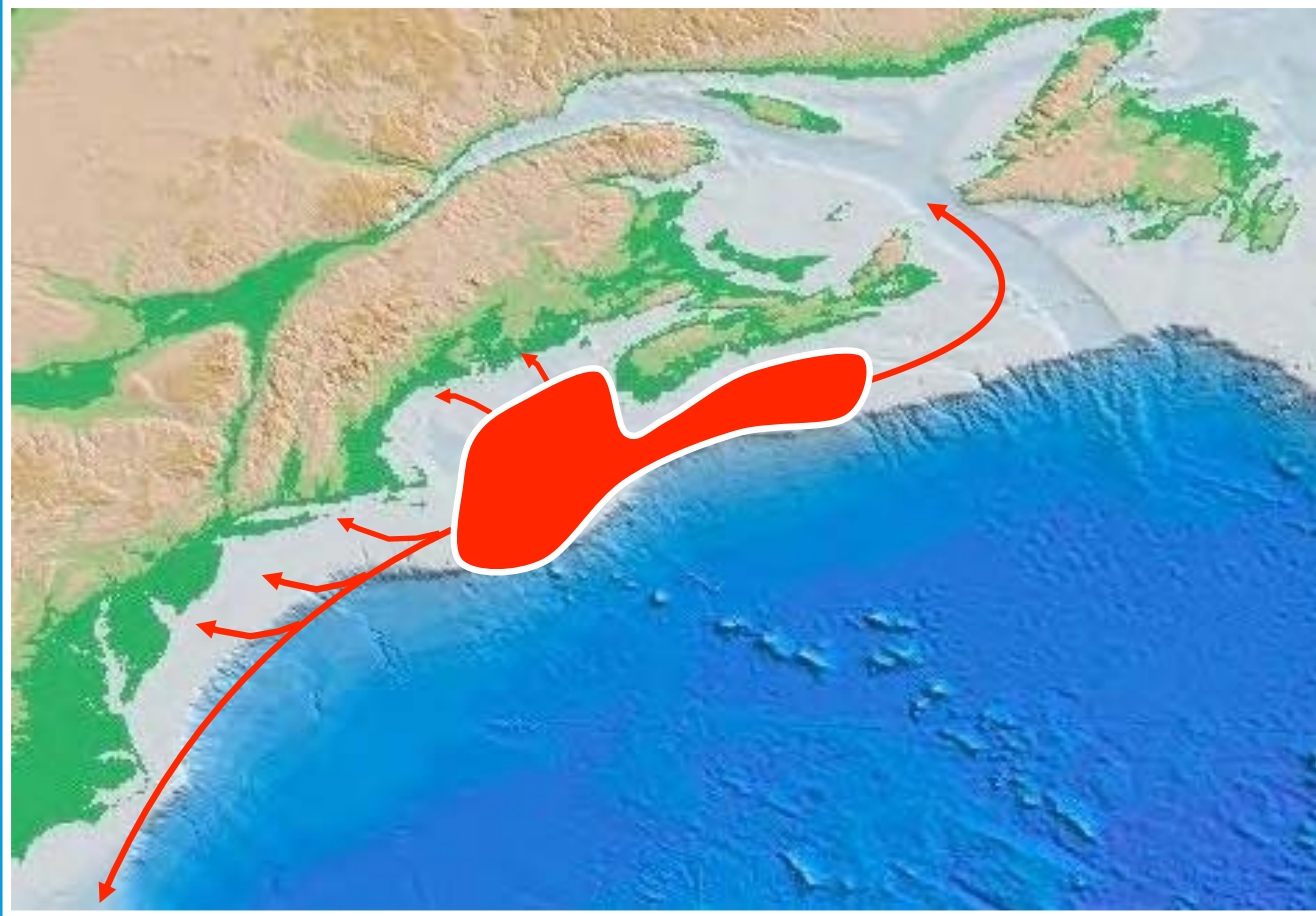


ALEWIFE BIOLOGY



- Length: Up to 12 inches
- Sexual Maturity: 3 - 5 years
- Lifespan: 8-10 years

ALEWIFE LIFE CYCLE



ALEWIFE LIFE CYCLE



ECOLOGICAL IMPORTANCE

Alewives tie our ocean, rivers and lakes together, providing vital nutrients and forage needed to make healthy watersheds

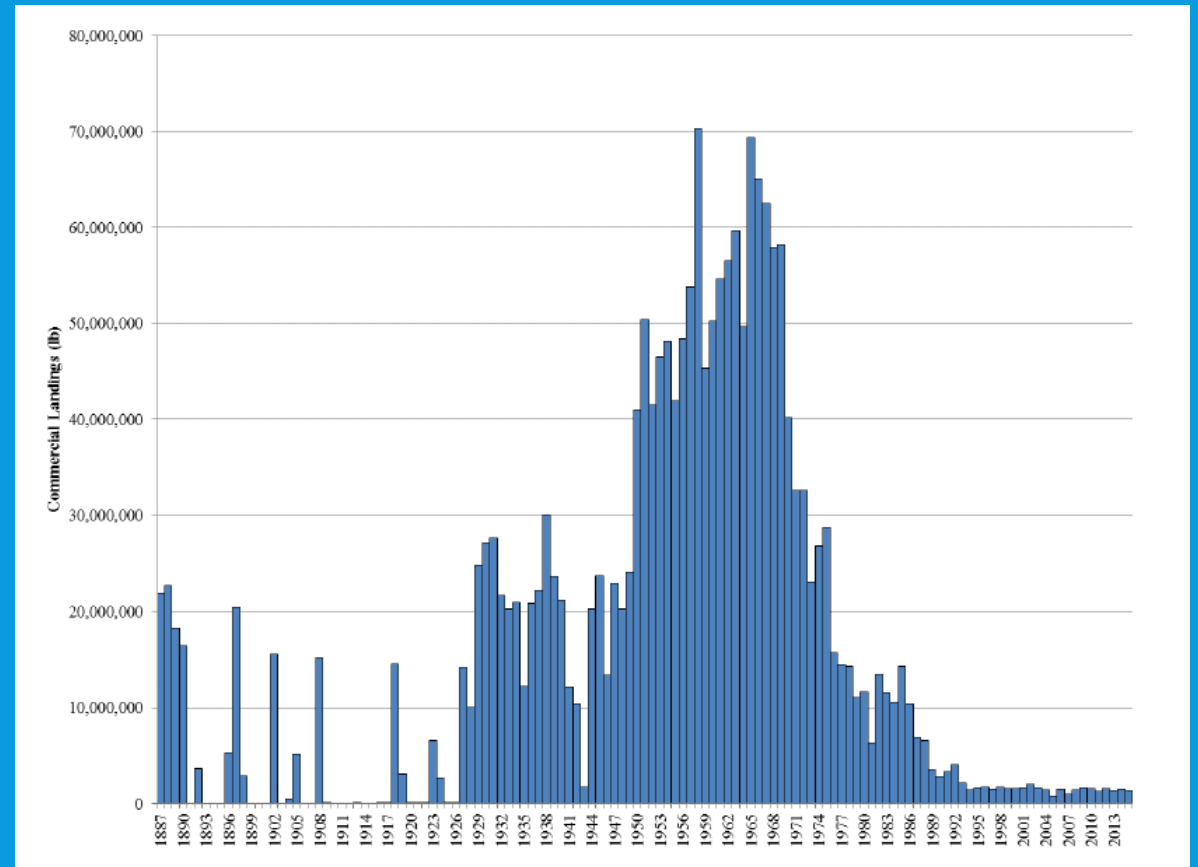
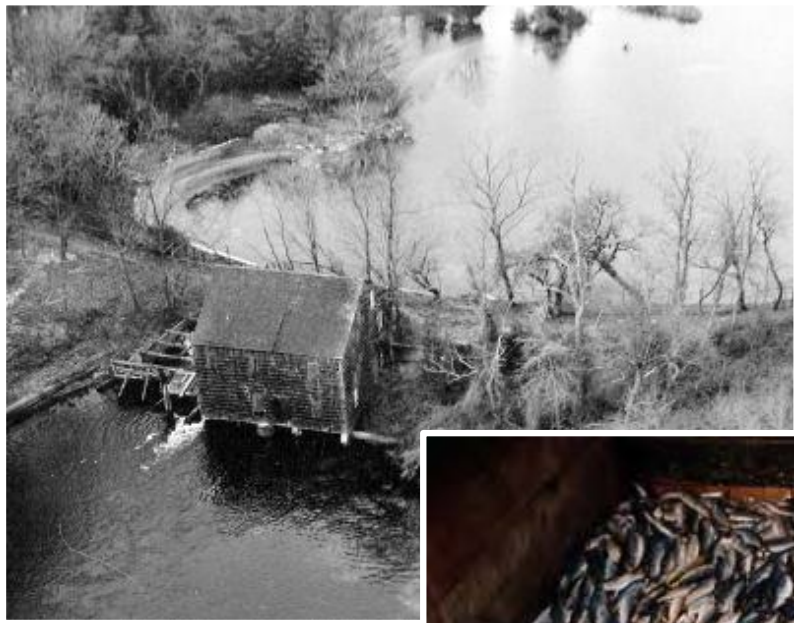


ECONOMIC IMPORTANCE

Their many predators support fisheries, the seafood industry, and eco-tourism



DECLINE OF ALEWIFE



RESTORING TRIBUTARIES AND MIGRATORY FISH ON LONG ISLAND

In 2008 the Long Island Diadromous Fish Work Group was formed, with a mission to advance fish passage and dam removal projects to benefit diadromous, migratory fish, runs around Long Island

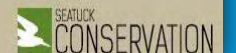


SEATUCK RIVER REVIVAL PROJECT



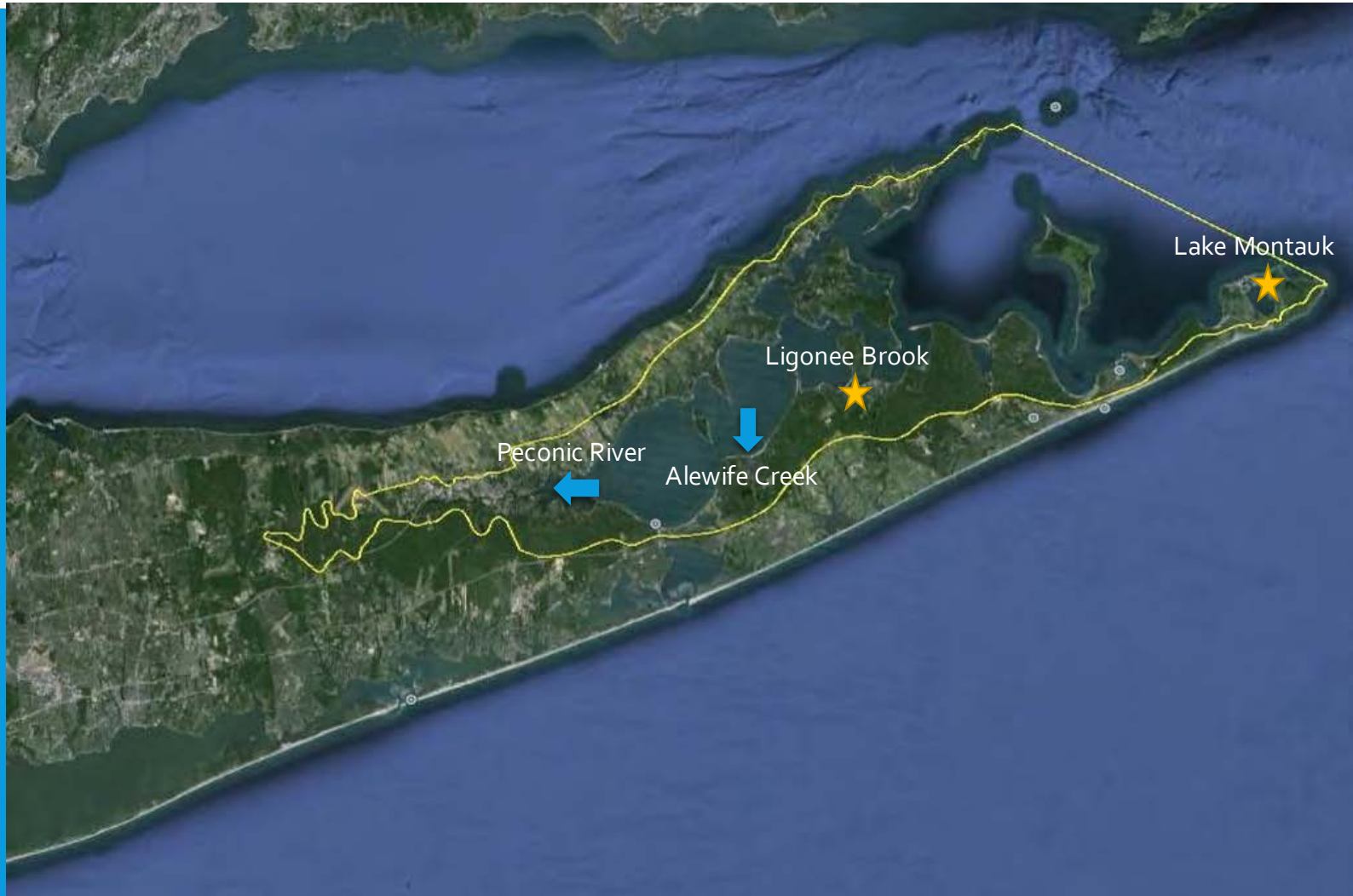
Long Island Diadromous Fish Restoration Strategy

Seaturck Environmental Association



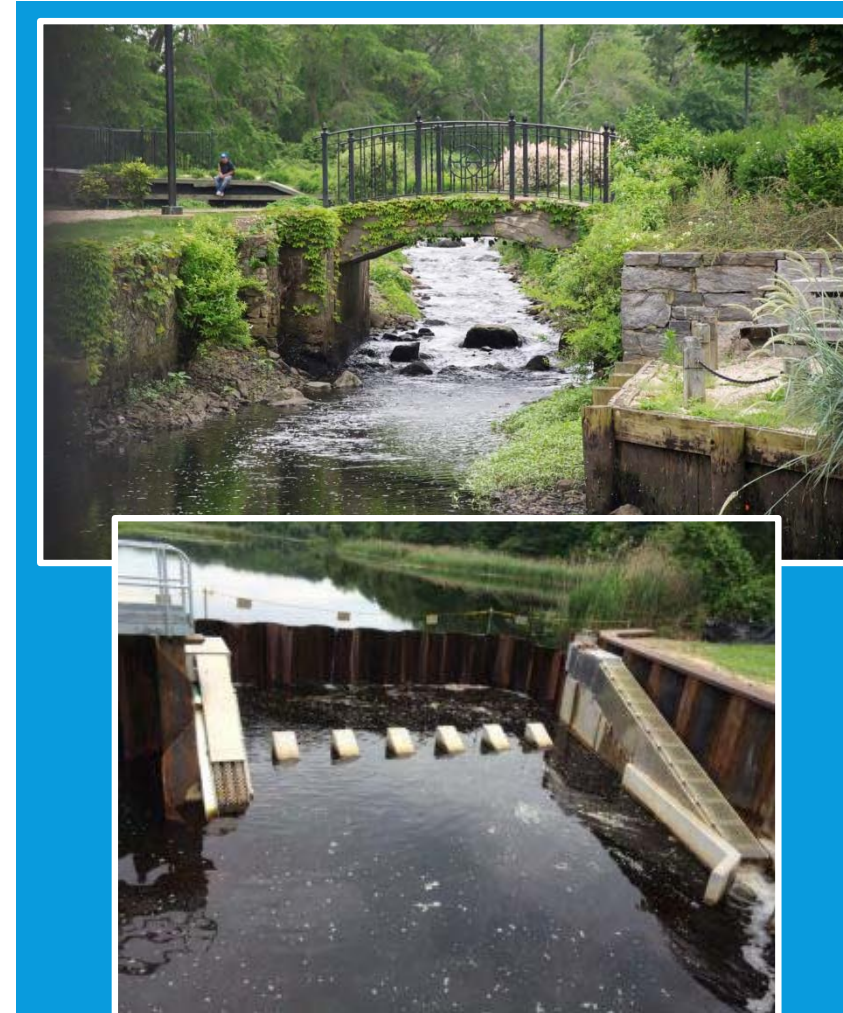
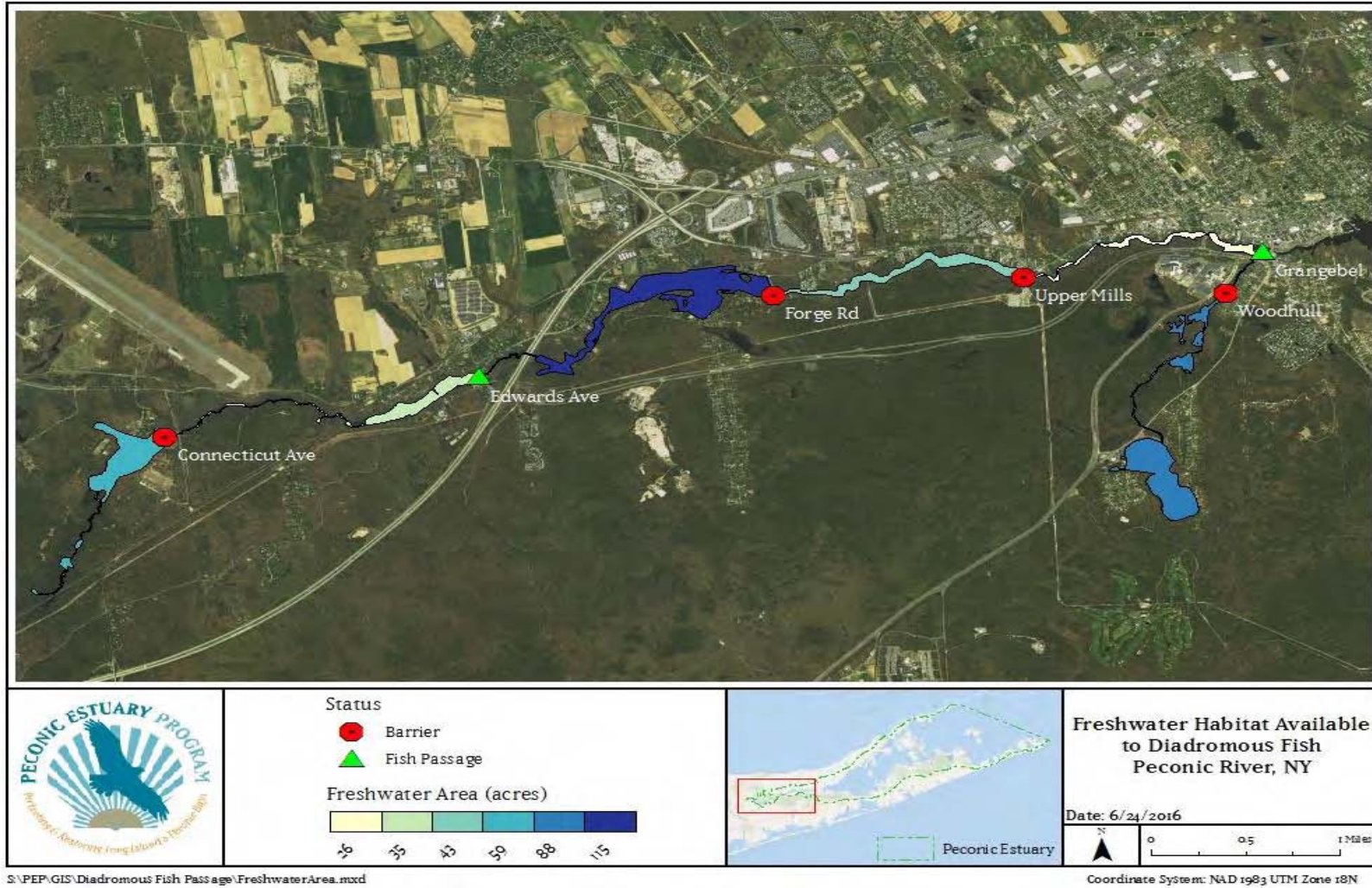
<https://www.seaturck.org/index.php/river-revival-project>

RESTORING ALEWIFE SPAWNING GROUNDS IN THE PECONIC ESTUARY

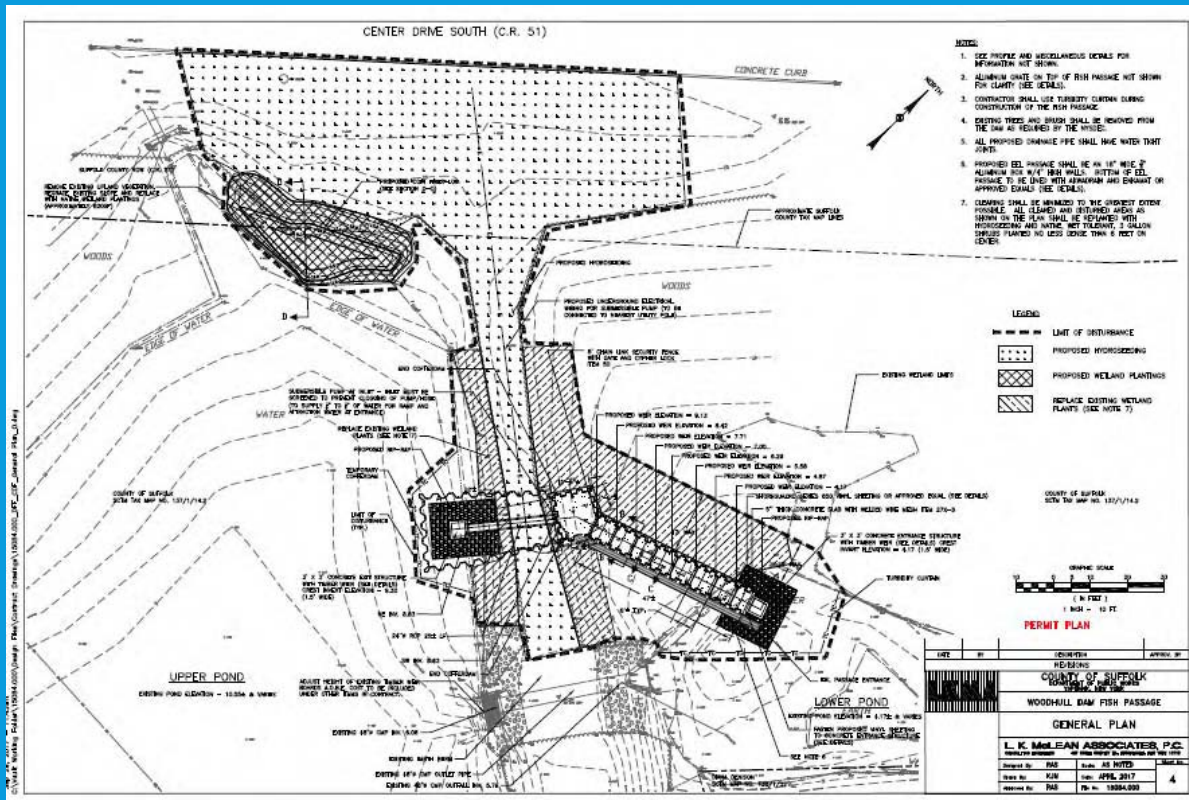


- Two major Alewife Spawning Runs in the Peconic watershed:
 - Alewife Creek
 - Peconic River
- Alewife have also been observed at:
 - Ligonee Brook
 - Lake Montauk

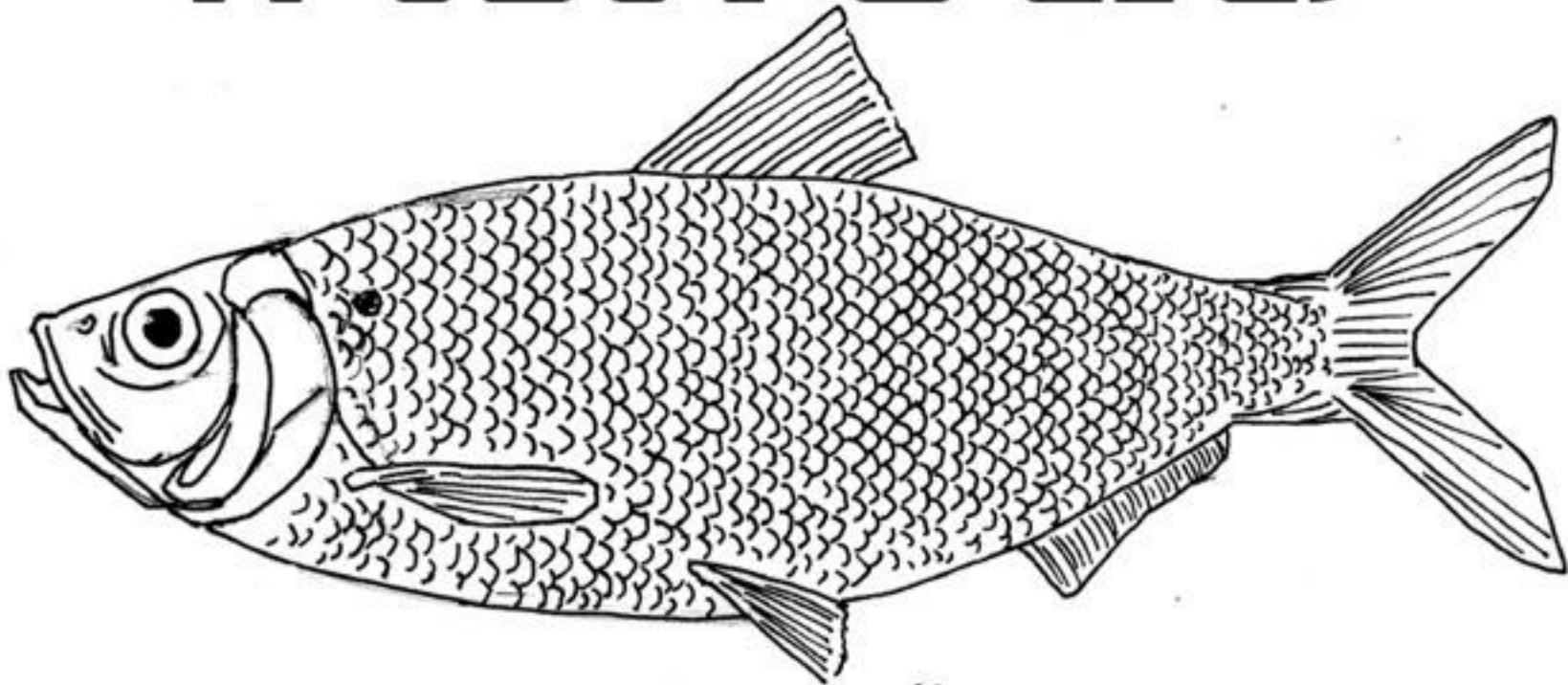
PECONIC RIVER



COMING SOON! WOODHULL DAM FISH PASSAGE



WANTED



Alewife (Alosa pseudoharengus)

HELP FINDING ALEWIFE

APPROACH & GOALS OF THE SURVEY

How the Survey Works:

- Volunteers look for alewife migrating or spawning in Long Island tributaries during the spring
- March 1 to May 30

Survey Goals:

1. Document **where** alewife make spawning runs
2. Document **when** alewife make spawning runs
3. Estimate **the size** of existing spawning runs
4. Find "remnant runs" in tributaries where herring have not been observed
5. Upstream observations in tributaries where fish passage has been installed

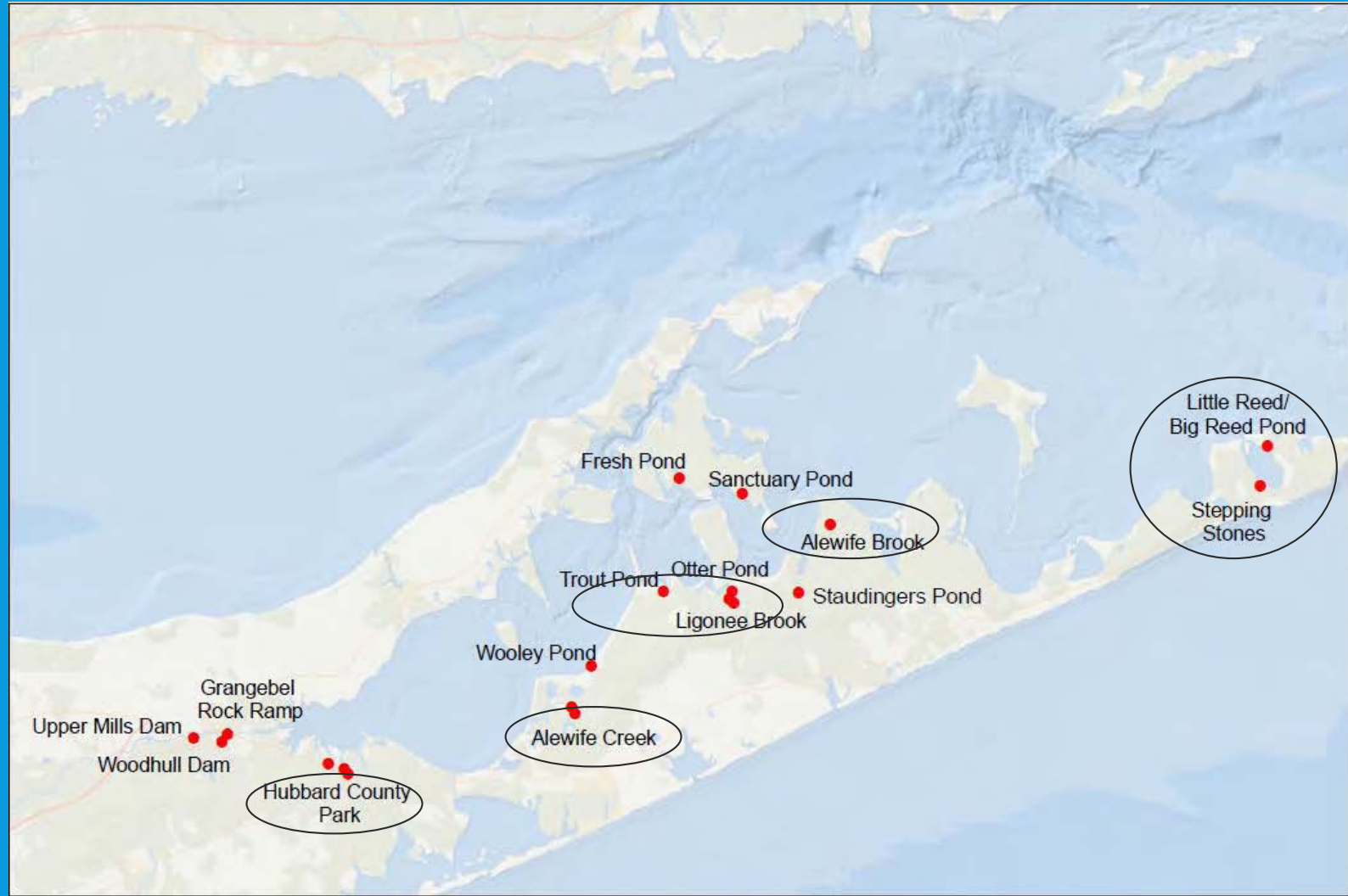
MONITORING RESULTS

- 50-100 citizen scientists per year
- Survey covers around 50 tributaries per year
- 20+ remnant alewife spawning runs have been identified
- 10+ fish passage projects have been completed



WHERE TO SURVEY

- Typically on bridges downstream of the first impassable barrier
- Ideally at places where . . .
 - Flow is somewhat constricted
 - Water is clear
 - Water is relatively shallow



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WHEN TO SURVEY

- Survey at fairly regular intervals (or team up with someone to do so)
- The more the better – but any surveying is good surveying!
- It's best to look when visibility is good (enough light, clear water), but varying times of day and tidal cycles provide valuable information
- Monitor for any period where you can devote at least 15 minutes to observing the site

HOW TO SURVEY

- From your vantage point, find a way to minimize glare and increase your ability to see into the water
- Alewives will be easiest to see against a light background
- Observe the area for 15 minutes looking for movement and schooling fish in the water or trying to cross the barrier
- These fish are adapted to be cryptic from above - ones that are easy to see are easy prey - so be patient and attentive

cryp·tic
'kriptik



**servng to camouflage an
animal in its natural environment**





Alewife - Sunken Meadow Creek, King's Park, NY

Beware of Imposters!

Brook Trout

Alewife



Alewife



Carp

Atlantic Menhaden (Bunker)



OTHER SIGNS OF ALEWIFE



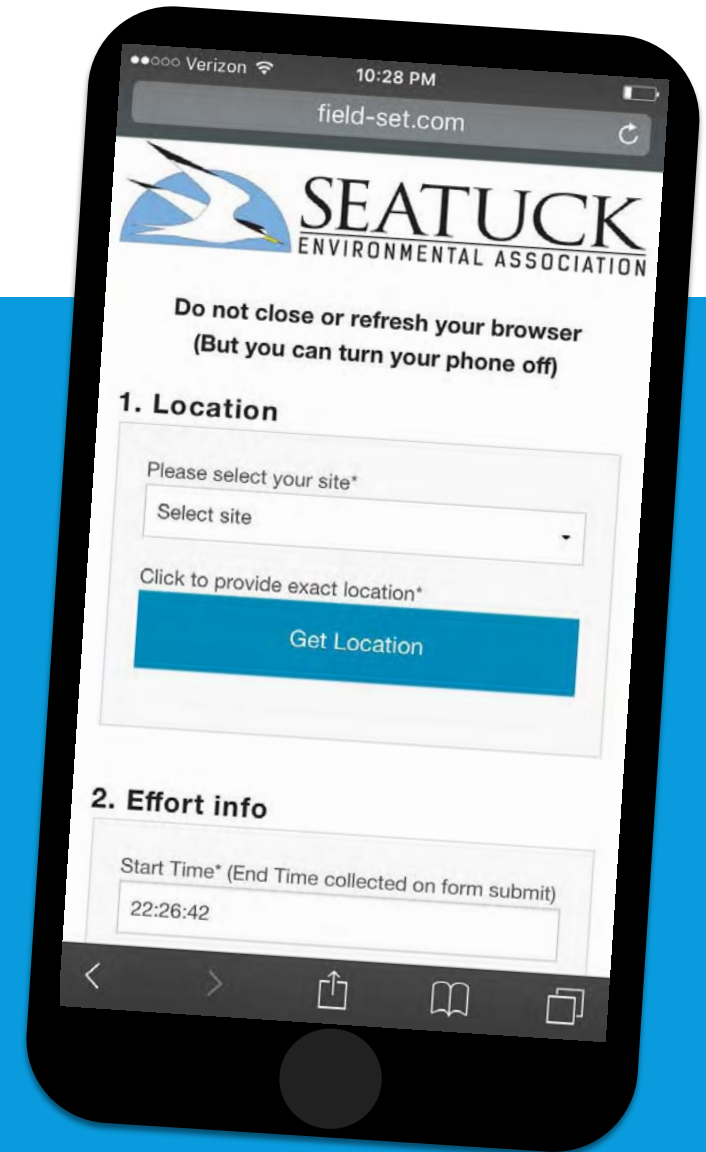
Scales



Predators

WHAT TO RECORD

- Name, River, Observation Site
- Date
- Monitoring Start/End Time
- Tide Stage (if you know it)
- Water Temp (if you have a thermometer)
- Weather Conditions
- Alewives
 - Yes/no
 - Approximate count
- Notes



<https://arcg.is/oLOTve>

OTHER CONSIDERATIONS

- Safety First!!
- Call or email Elizabeth Hornstein or Emily Hall to discuss questions or difficulties:
 - Elizabeth: (631) 444-0871, elizabeth.hornstein@dec.ny.gov
 - Emily: 631-581-6908, ehall@seatuck.org
- Polarized lenses are extremely helpful
- If possible, photograph any fish or other interesting observations and share them through the data submission form or email us

Questions?

Thank you for volunteering!



**Department of
Environmental
Conservation**