



Video Monitoring of the Mystic River Herring Migration

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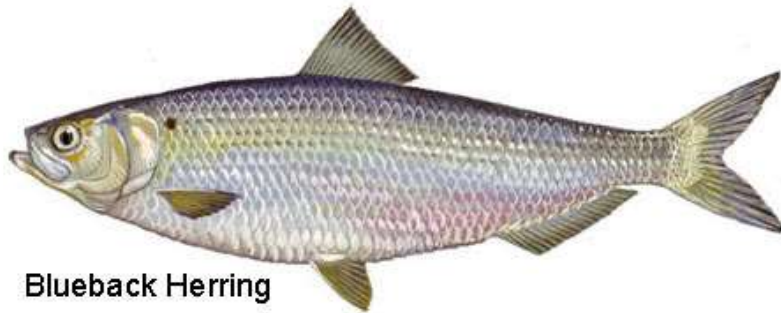
Mystic River Watershed Association

your community, your watershed

River Herring

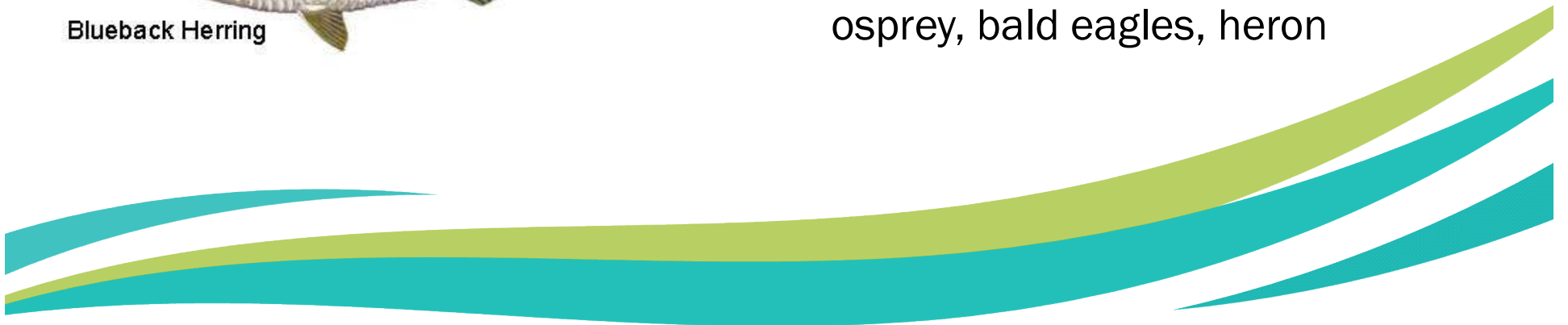


Alewife



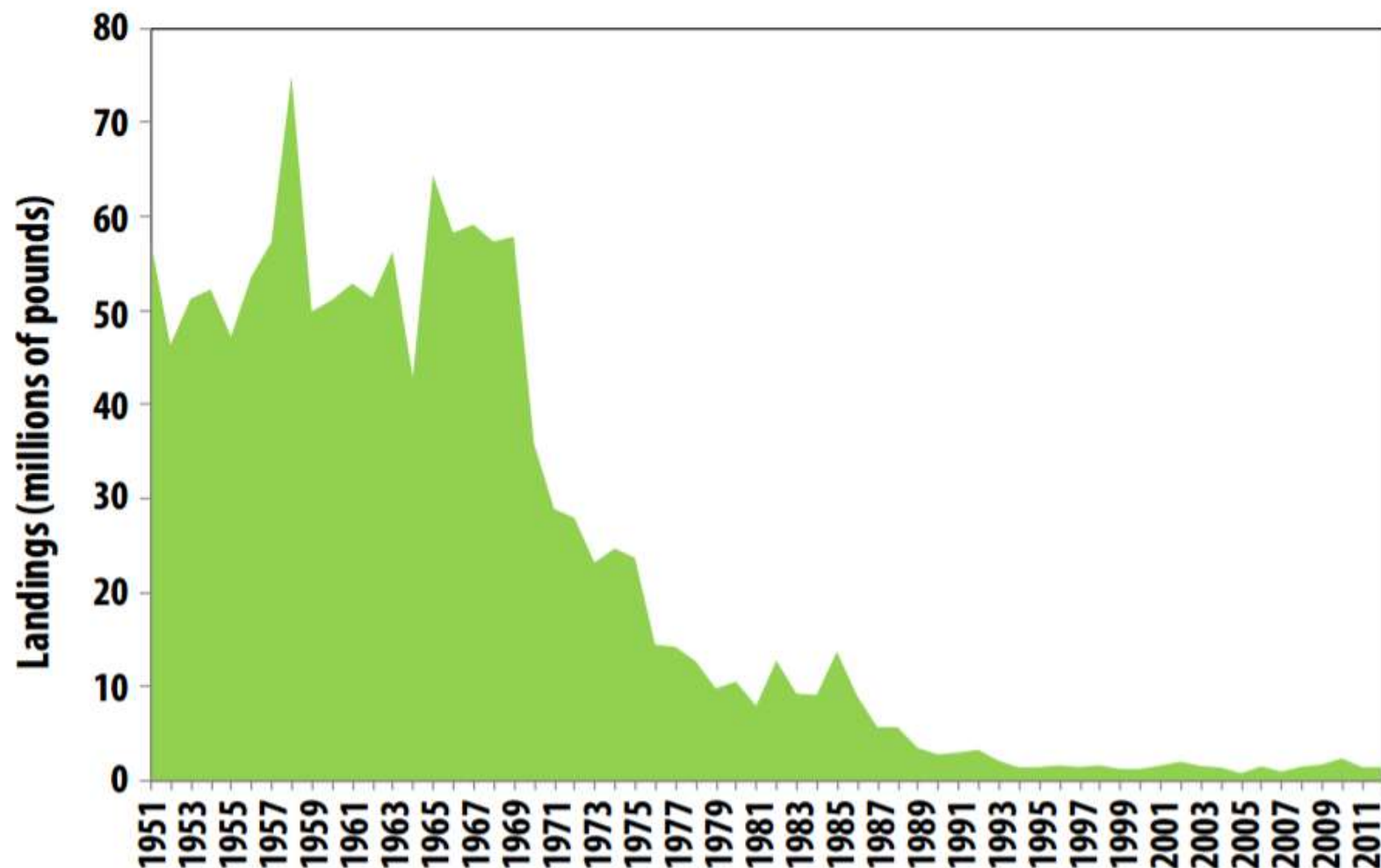
Blueback Herring

- Found in rivers, coastal waters
- Anadromous
- Economically and ecologically significant
- Important to the food web
 - striped bass, cod, blue fin tuna, osprey, bald eagles, heron



Atlantic Coast River Herring Landings

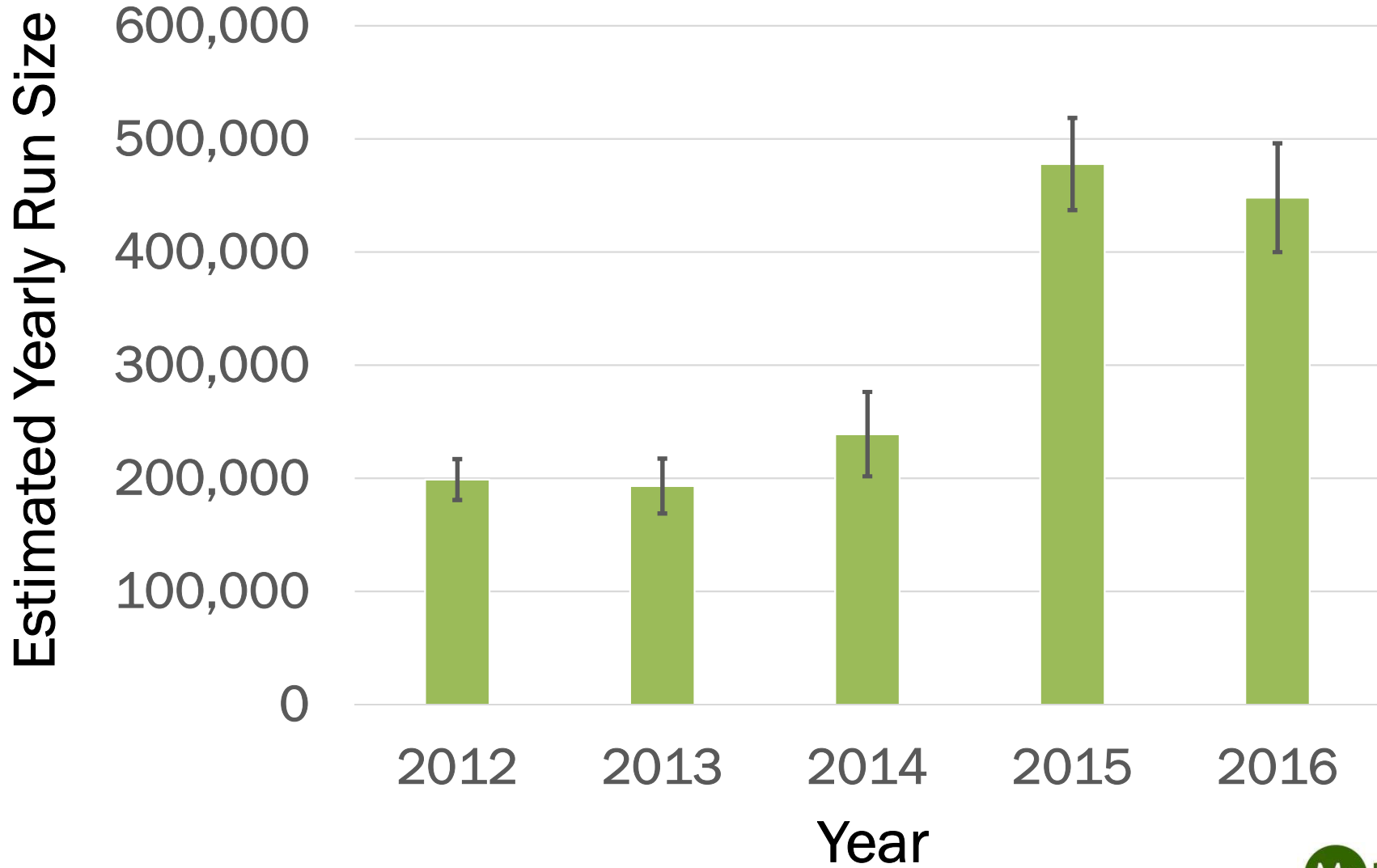
*Source: personal communication from NOAA Fisheries Statistics Division,
Silver Spring, MD 2013*



Timeline of Management Actions: FMP ('85); Amendment 1 ('99);
Addendum 1 ('00); Amendment 2 - River Herring ('09)



Estimated Yearly Herring Run Size 2012 - 2016

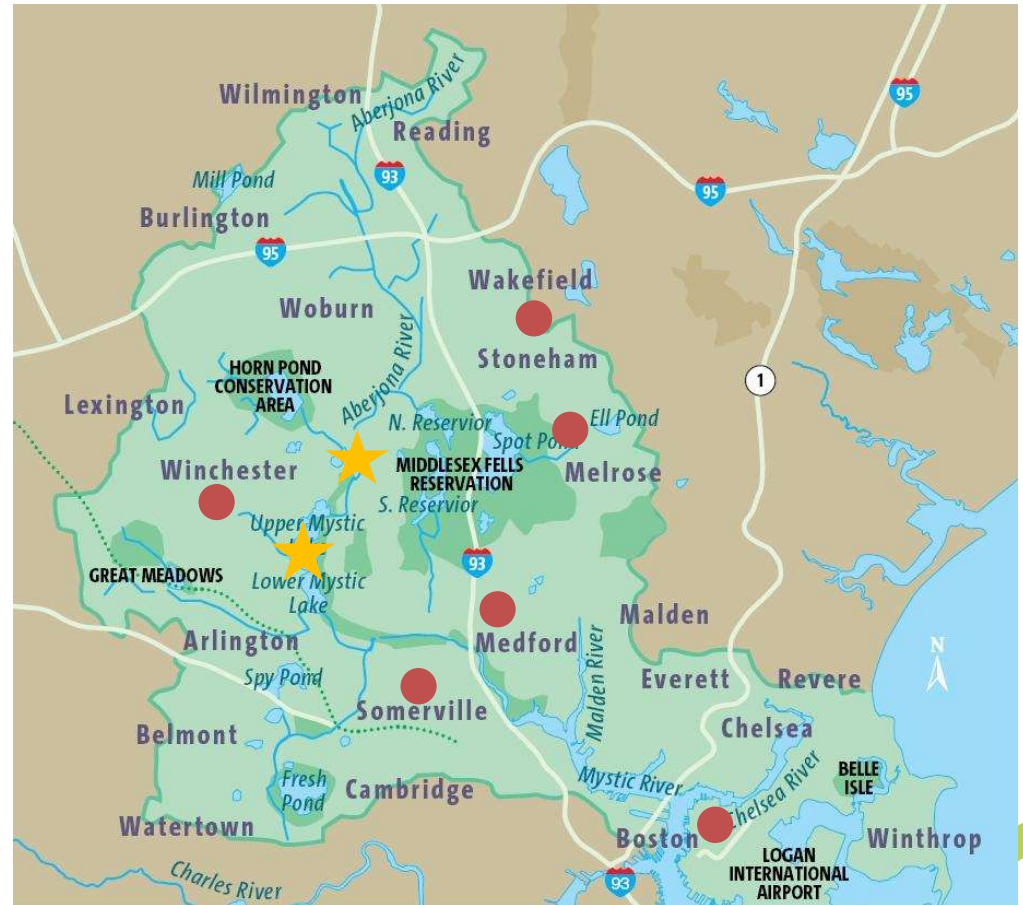


Let's count fish!

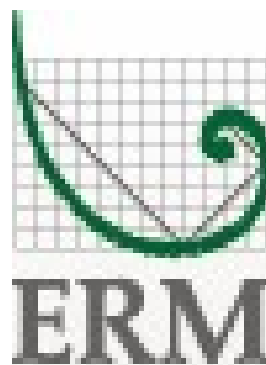


Herring Education Project

- 1) Underwater video camera
- 2) Sophisticated system architecture
- 3) Attractive web interface
- 4) Community engagement

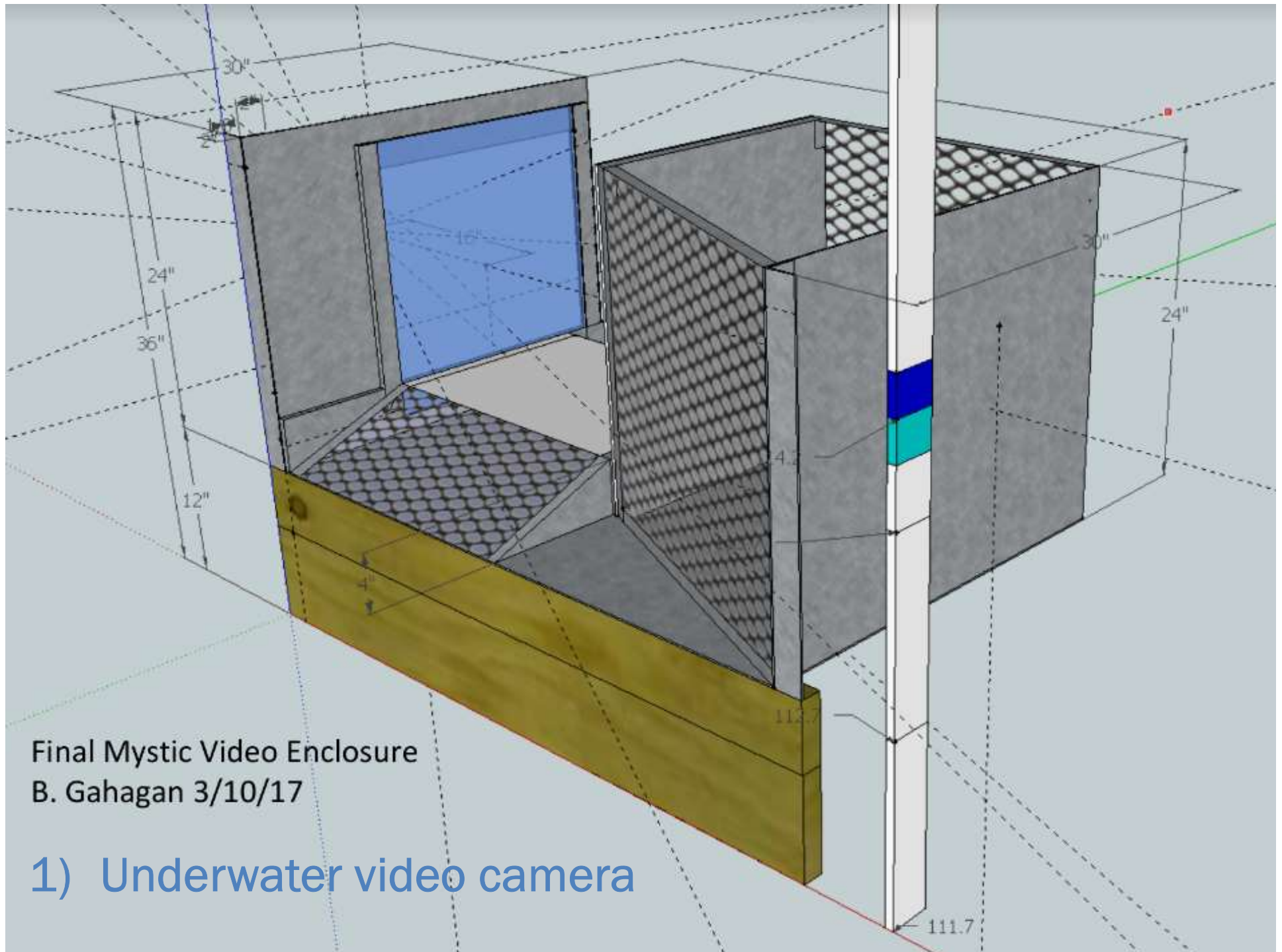


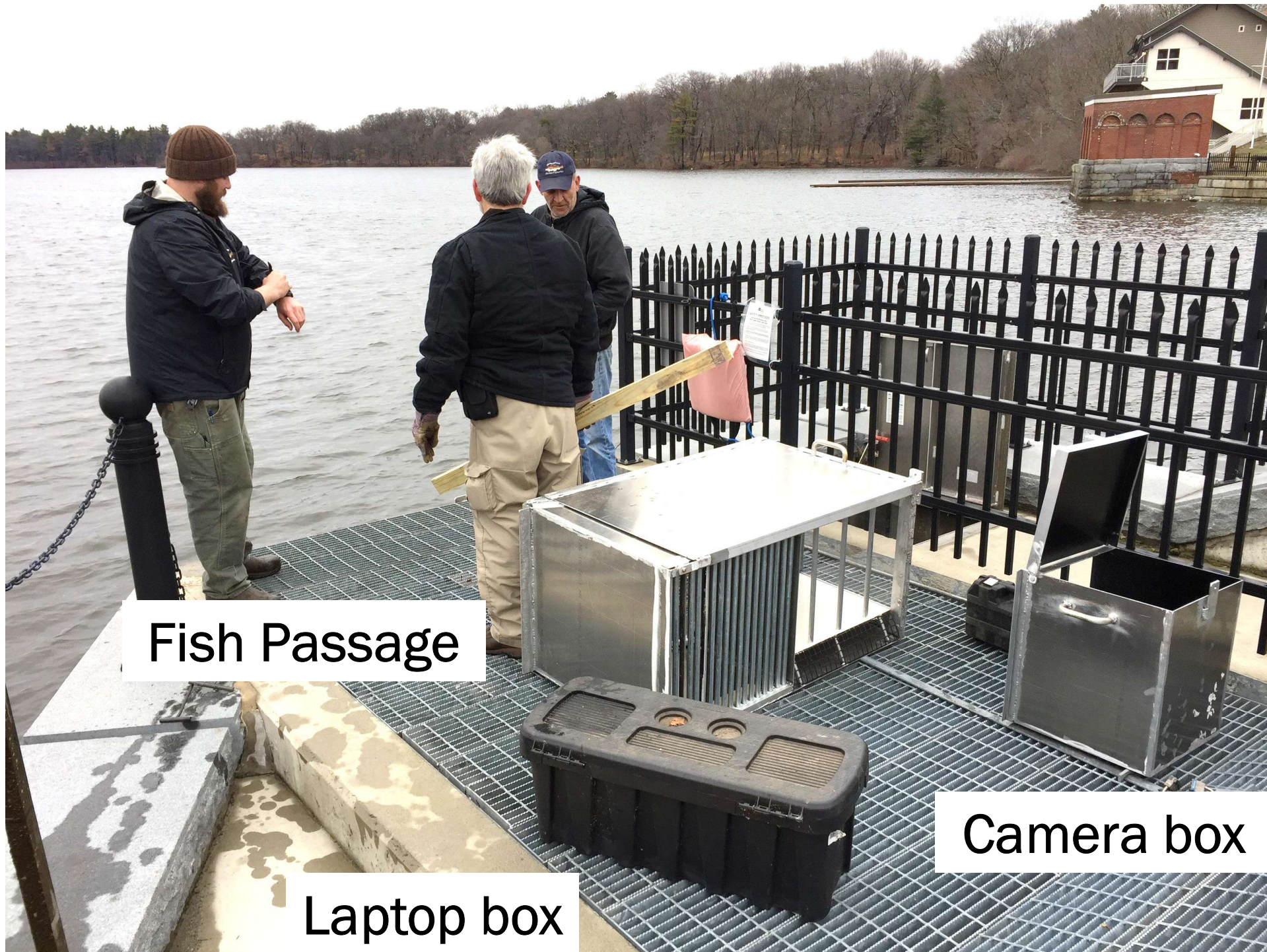
Project Partners



Drane Family Fund







Fish Passage

Laptop box

Camera box

Fish Passage

Passage Narrower

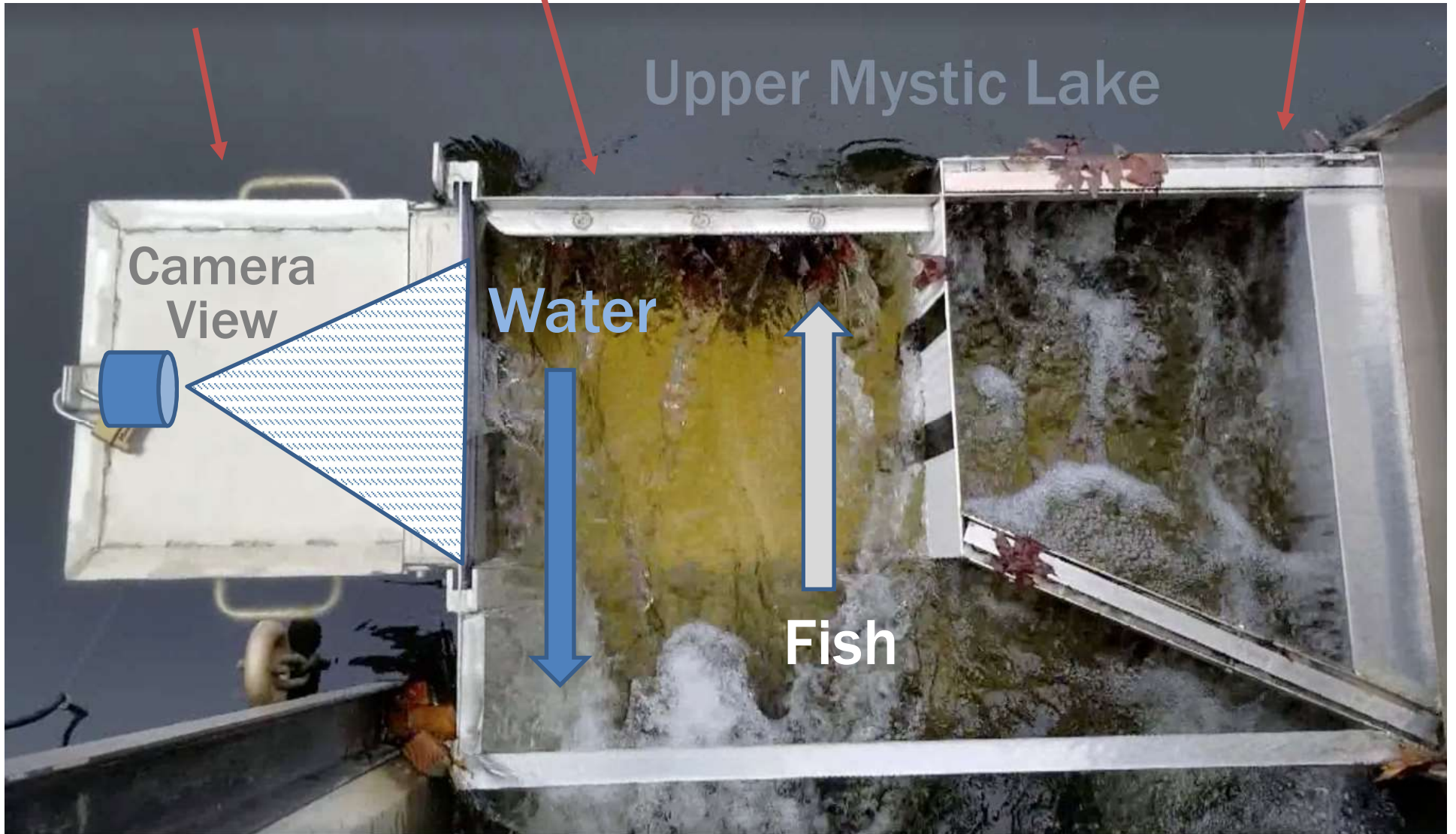
Camera Box

Upper Mystic Lake

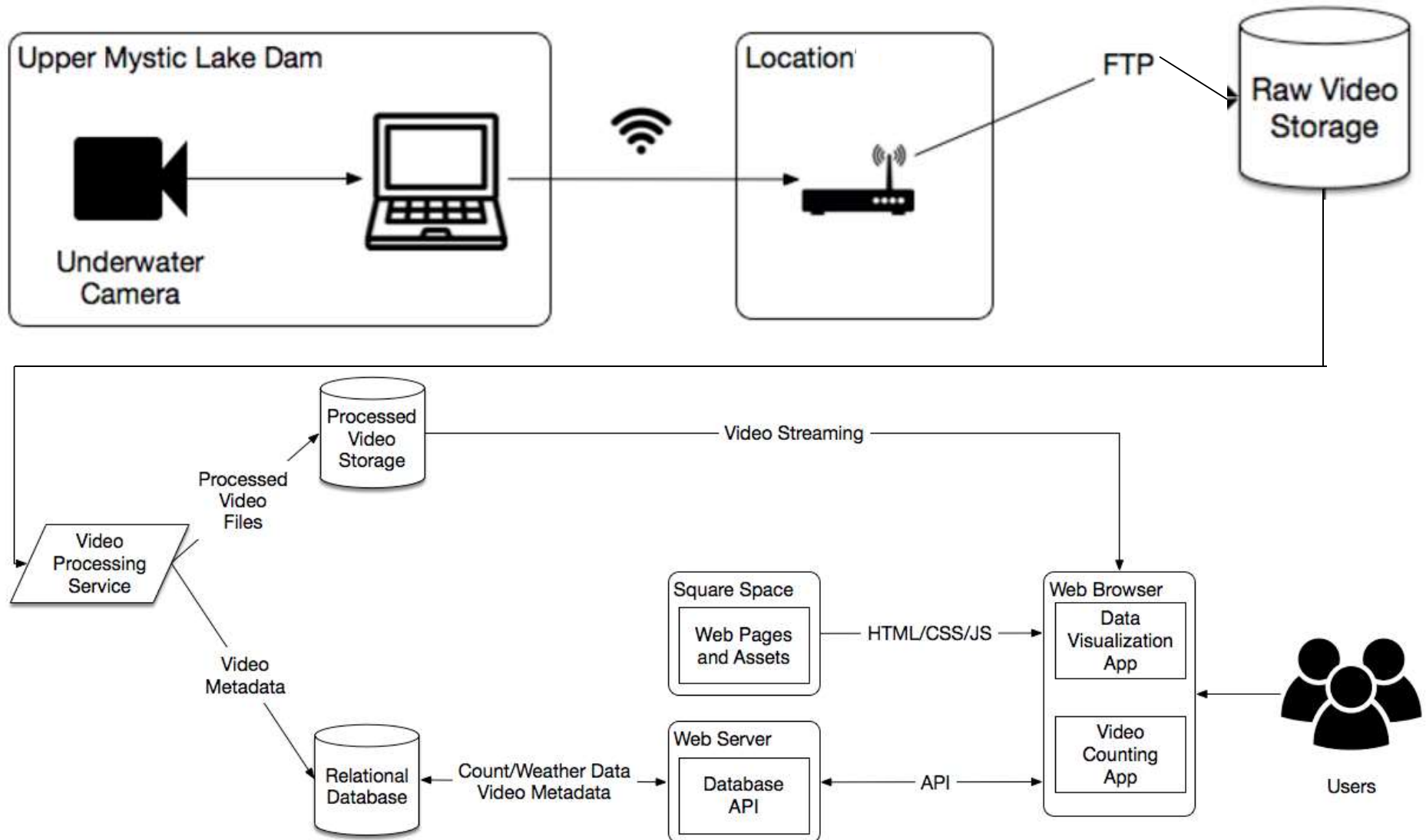
Camera
View

Water

Fish

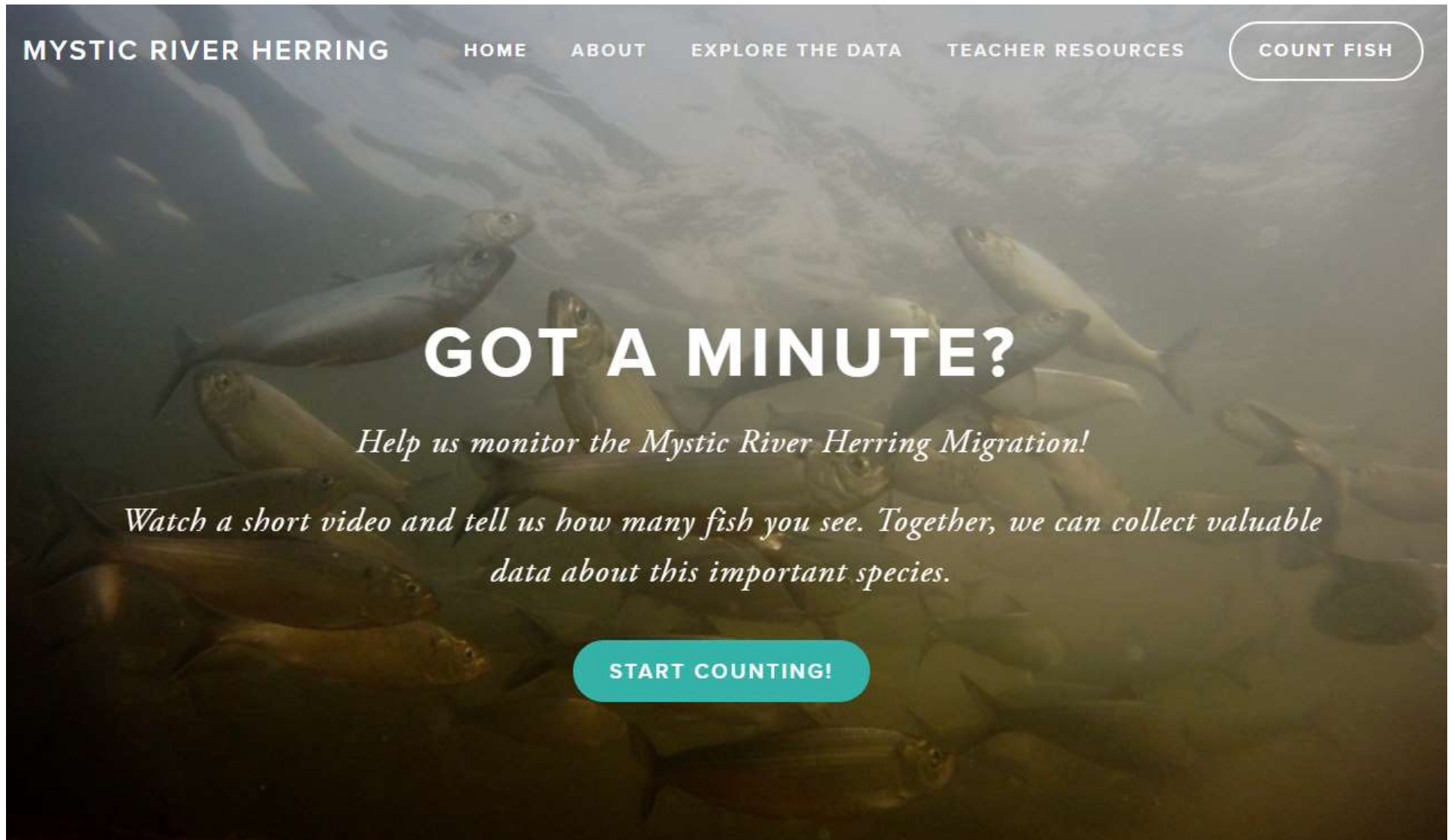


2.) Sophisticated System Architecture



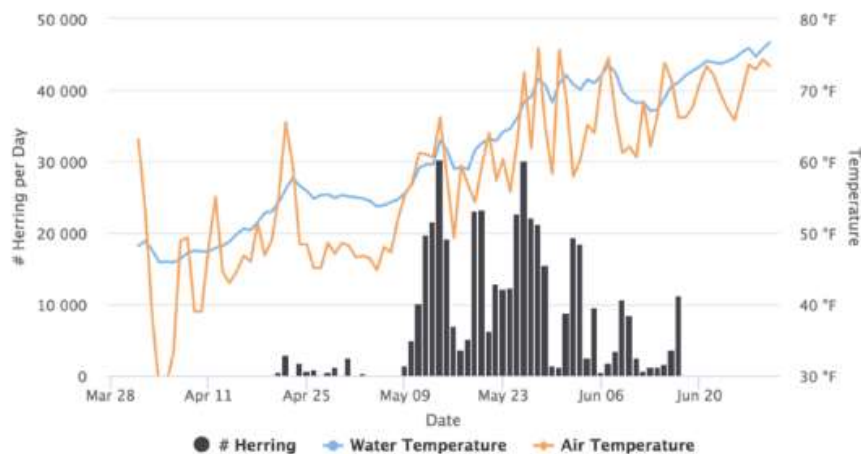
3.) Web Interface

www.MysticHerring.org



Explore the Data

WHAT CAUSES THE RIVER HERRING TO START MIGRATING EACH YEAR?



Each spring, river herring begin their migration up the Mystic River. But what causes them to start migrating? Why do they start earlier or later in some years relative to others?

EXPLORE THIS STORY

Real Time Count Status

18,732

1,597

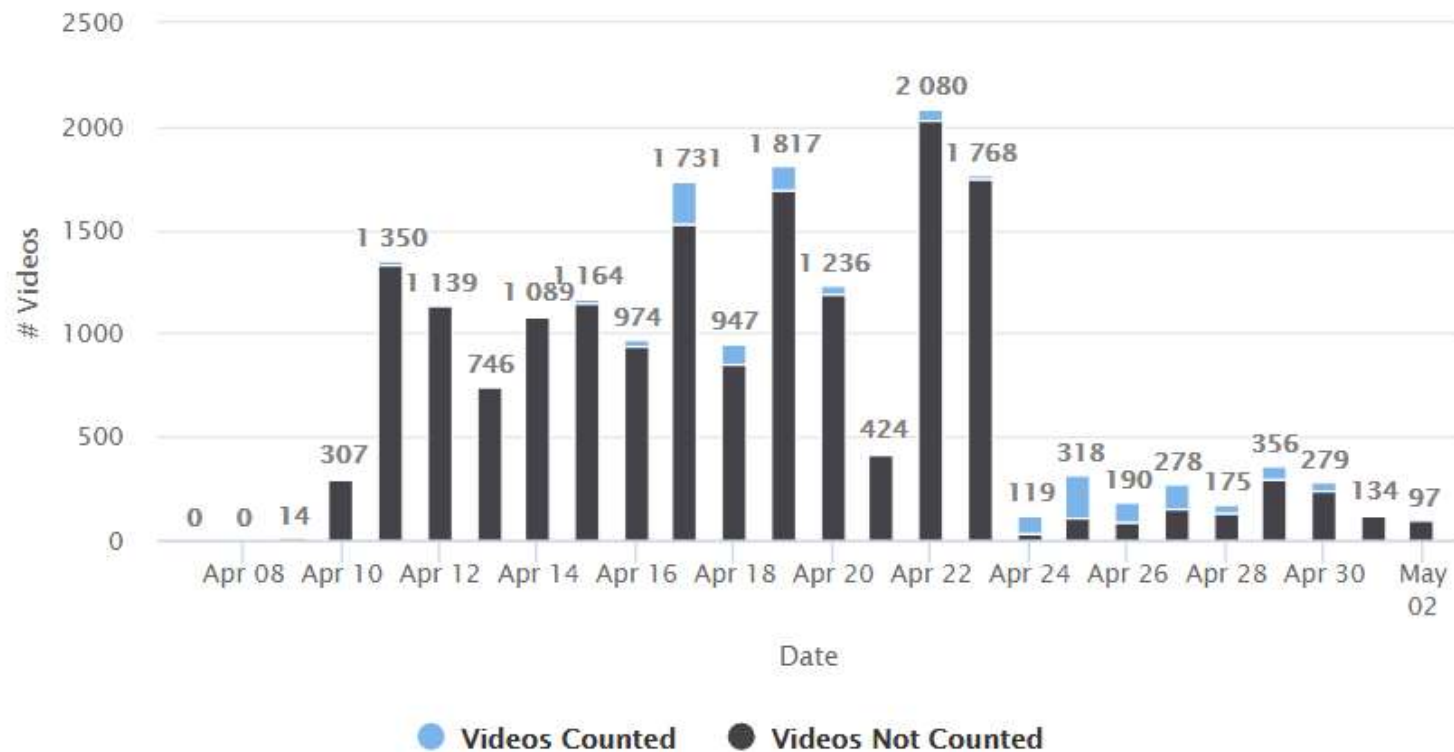
81,594

of Videos Recorded

of Videos Counted

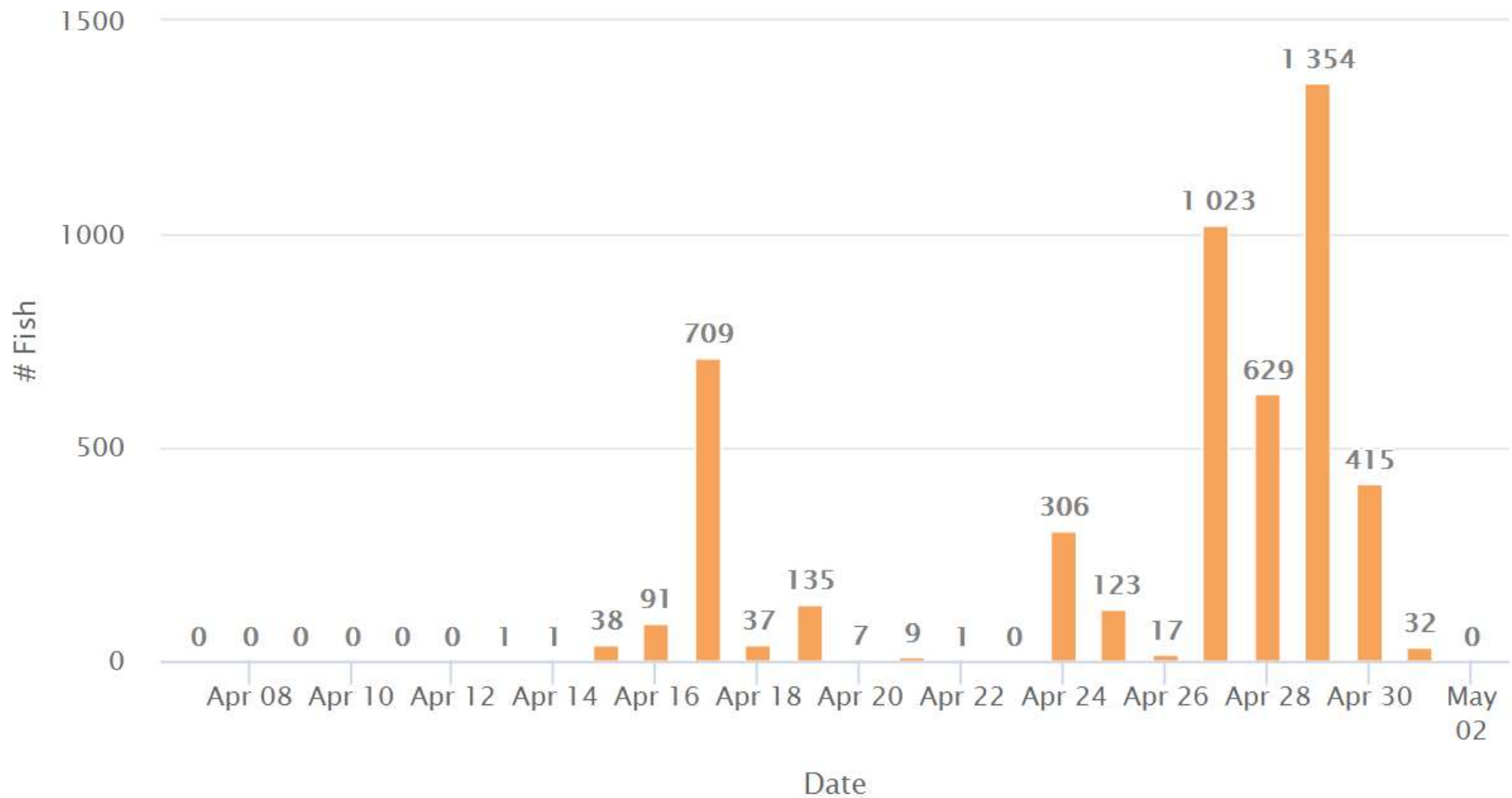
of Fish Counted

Number of Videos per Day



Real Time Count Status

Number of River Herring Counted per Day



What Happens at Night?

FPS: 10.03 5/1/2017 8:06:06 PM



4.) Community Engagement



Working in Schools:

1. East Boston
2. Medford
3. Melrose
4. Somerville
5. Wakefield
6. Winchester

Project Goals



- Schools:
 - 30 teachers engaged from 6 school districts
 - 440 students involved in 2017
- Compare with other fish counts across State and New England
- Inform planning and management of this critical species
- Increase knowledge of Mystic River herring!

How you can get involved



- Count herring!
www.MysticHerring.org
- Come to an “open house” to learn more and see the herring in person
 - Mon. May 8, 3-7pm
 - Tues. May 16, 3-7pm
 - Sat. May 20, 12-3pm
- Help out at a field trip
 - Mon. May 15, 9am
 - Thurs. May 18 (time TBD)
 - Mon. May 22, 9am



Through this project we will
galvanize interest in the local
environment, the herring migration
and increase stewardship.