

River Herring Spawning Runs Lamprey River, NH

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River Herring

- 2 species that are very similar in appearance
 - Alewife (*Alosa pseudoharengus*)
 - Blueback herring (*Alosa aestivalis*)
- Anadromous Fish
 - Life at sea
 - Spawn in rivers
 - Natal homing
- Iteroparous
- Populations are declining coast wide



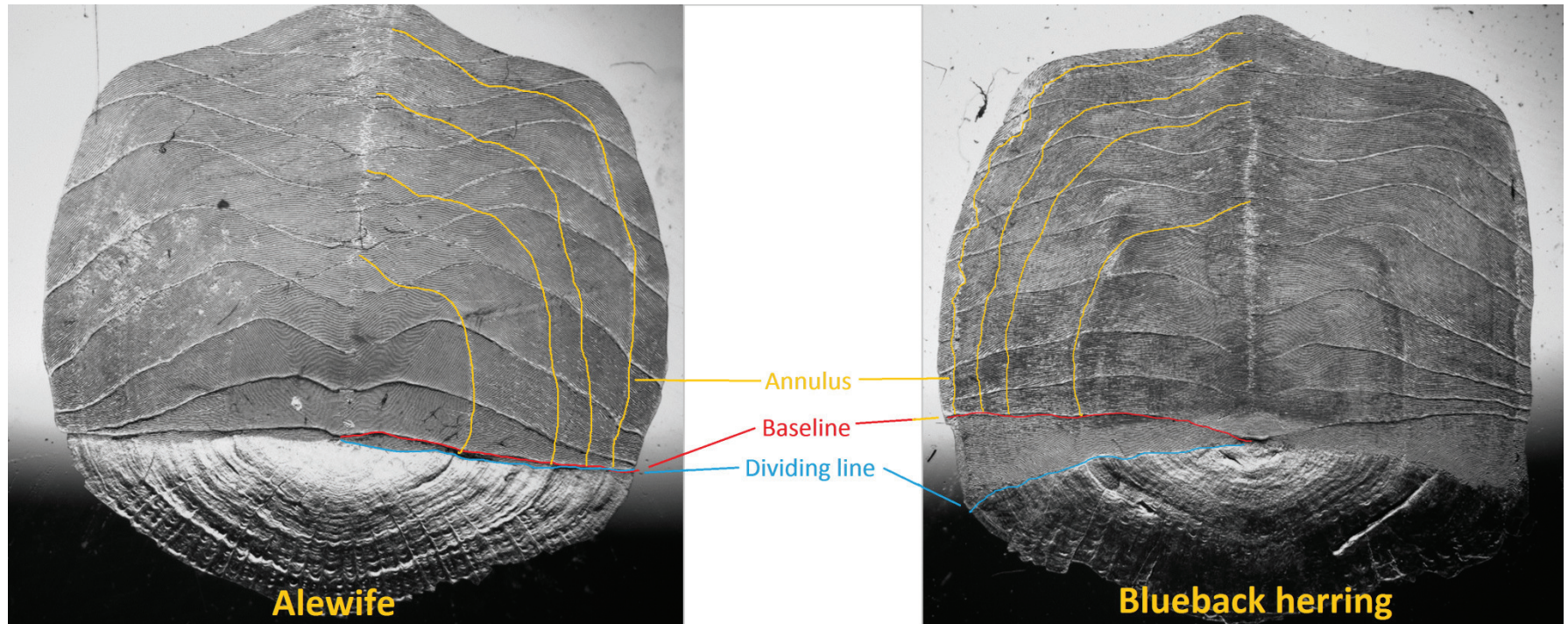
NHFG Monitoring

- Operate 7 fish ladders April through July
- Count the fish at each location
- Obtain Biological Information:
 - Gender
 - Length
 - Species Distribution
 - Age from Scales
- Stock fish both within-basin and out of basin

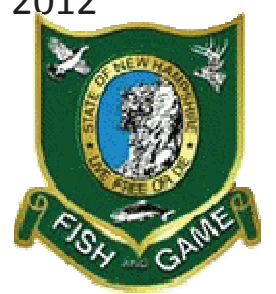
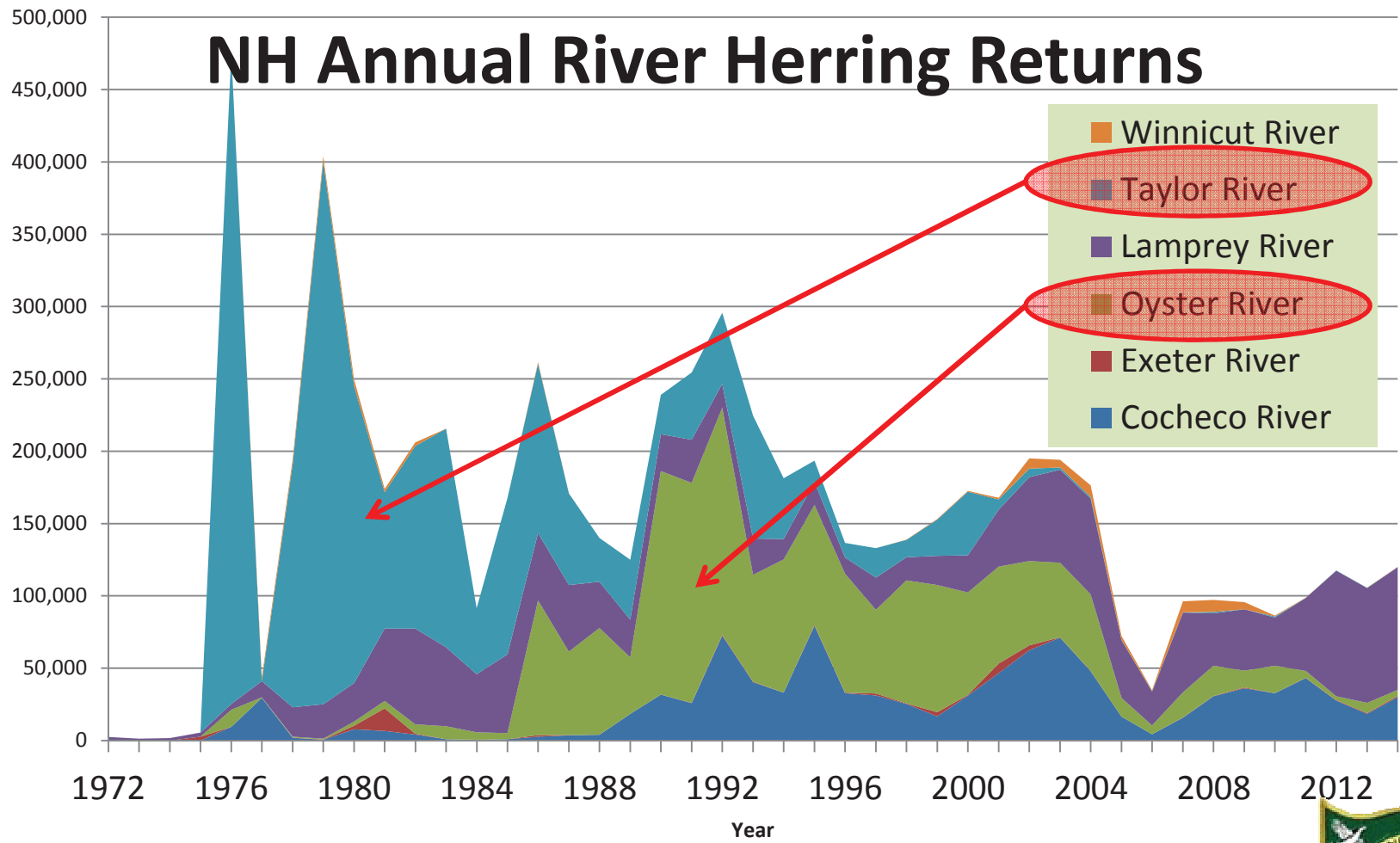




Scale Samples for Age and Species



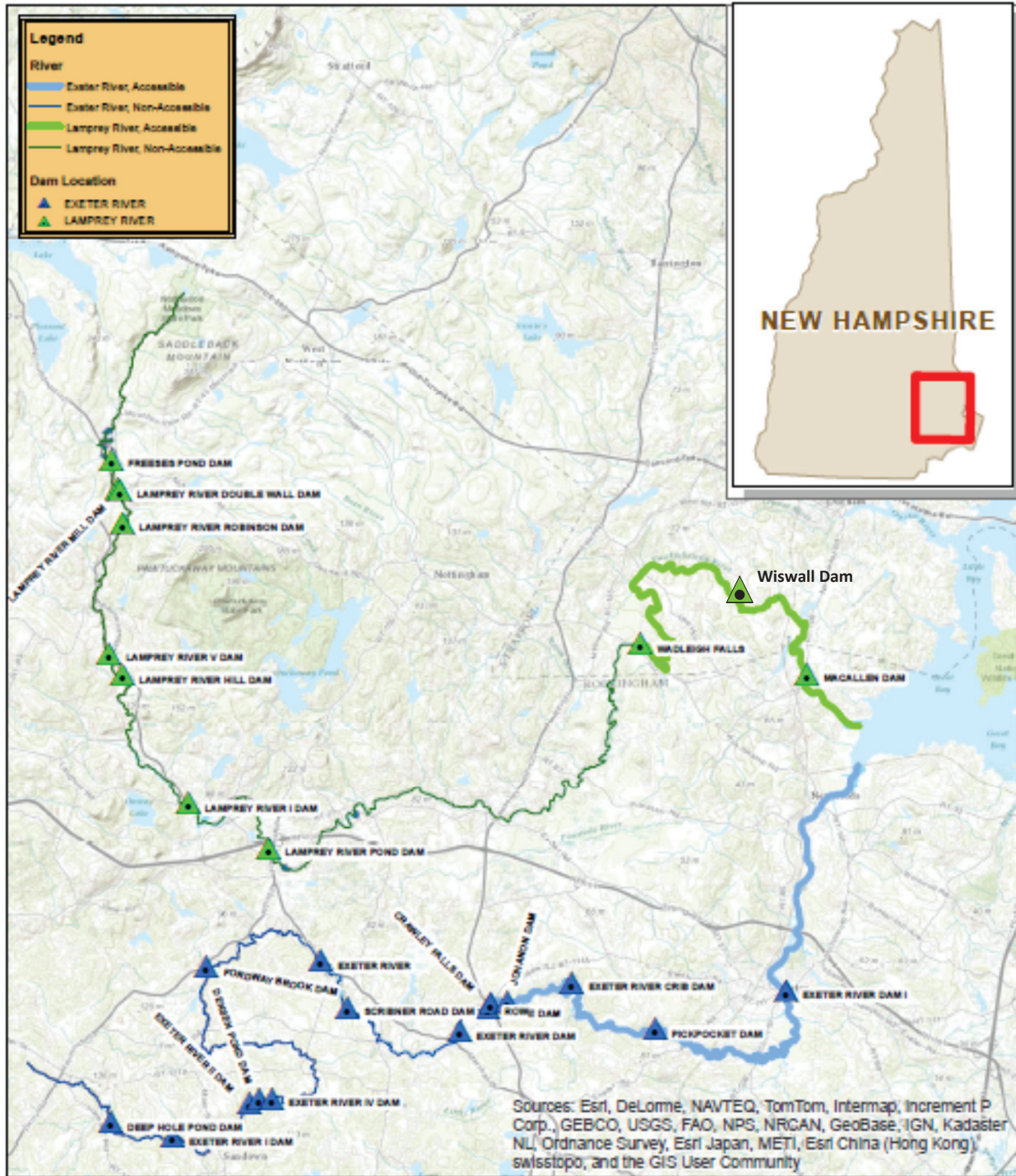
NH Annual River Herring Returns



Lamprey River, NH

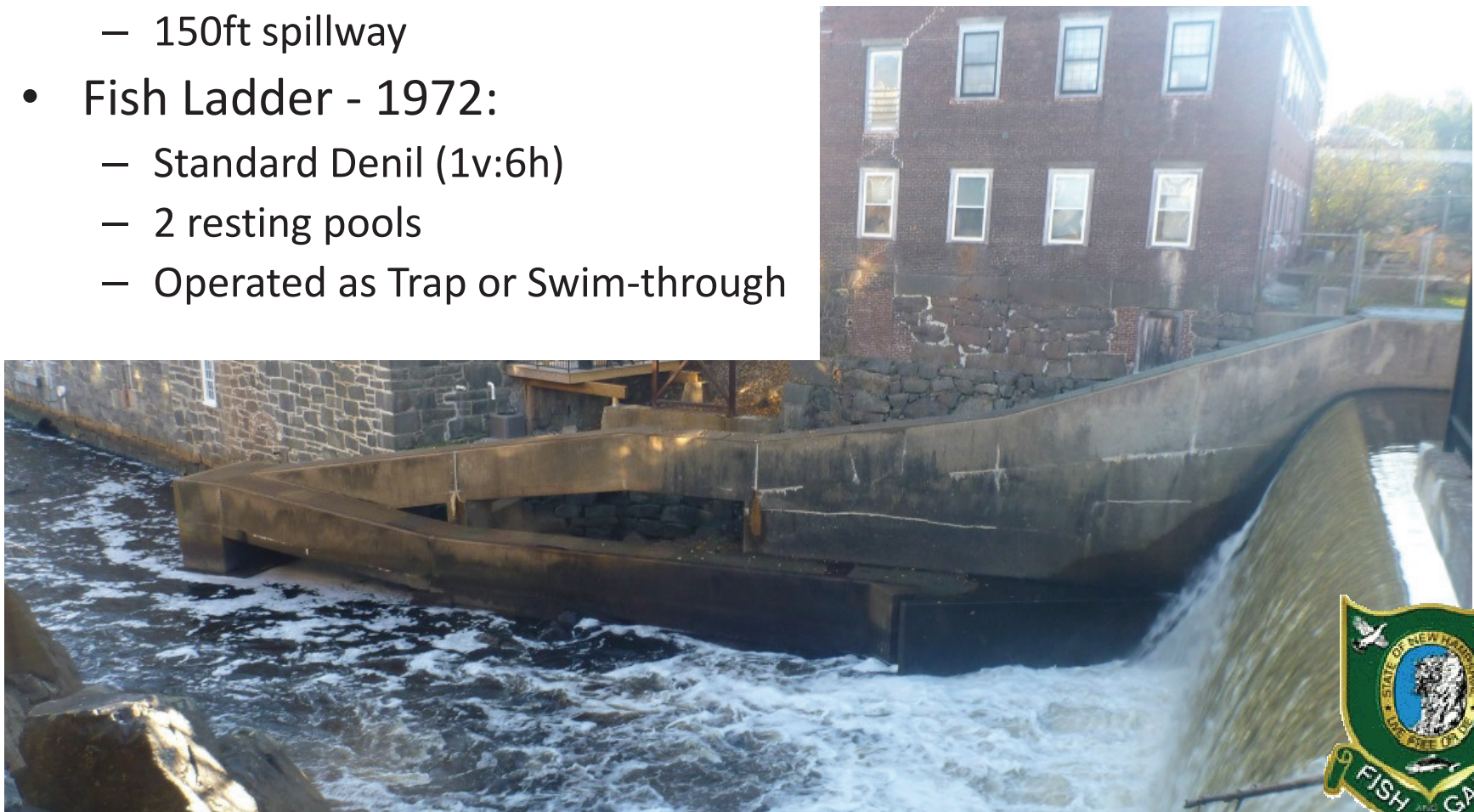
- Runs 43.5 mi to Deerfield (last dam)
- 49.8 mi to Northwood headwaters
- Flows into Great Bay
- Several existing dams
- 2 fish ladders
 - Macallen
 - Wiswall (operate)
- Restoration efforts:
 - ????-1972: Tidal only with dam at head of tide
 - 1972-2011: Only 3.5 mi above head-of-tide
 - 2011: Removed 3rd dam at 25.8 mi
 - 2012: Wiswall Ladder extends access to 11.4 mi





Macallen Dam/Fish Ladder

- Dam – 1887:
 - 27ft high
 - 150ft spillway
- Fish Ladder - 1972:
 - Standard Denil (1v:6h)
 - 2 resting pools
 - Operated as Trap or Swim-through



Wiswall Dam/Fish Ladder

- Dam – 1887:
 - 11ft high
 - 200ft spillway
- Fish Ladder - 2012:
 - Standard Denil (1v:6h)
 - 1 resting pool
 - Swim-through
- 21% to 38% of all herring pass



Annual River Herring Returns to the Lamprey River

