

A wide river with rapids, a dam on the left, and a forested background under a blue sky.

Cape Fear eDNA Sampling

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2021 Sampling

- Sampled every other week for LD1, weekly for LD2 and LD3
- Mar. 15 through May 3
- 114 samples
- One pulse on Mar. 29th

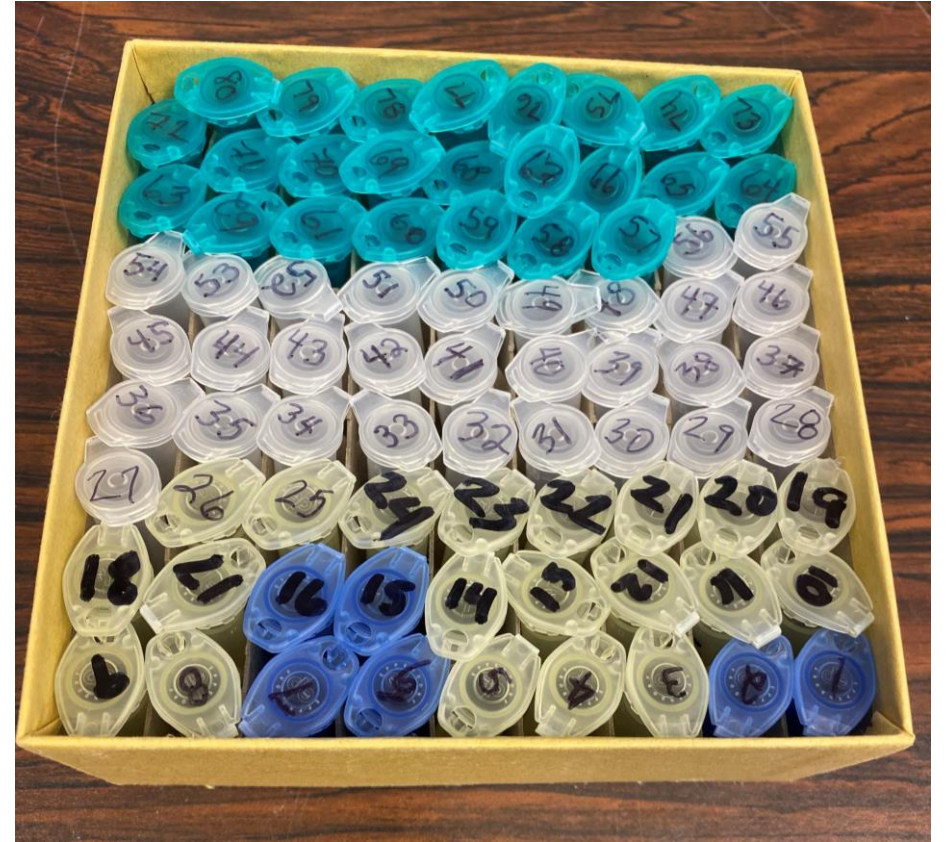
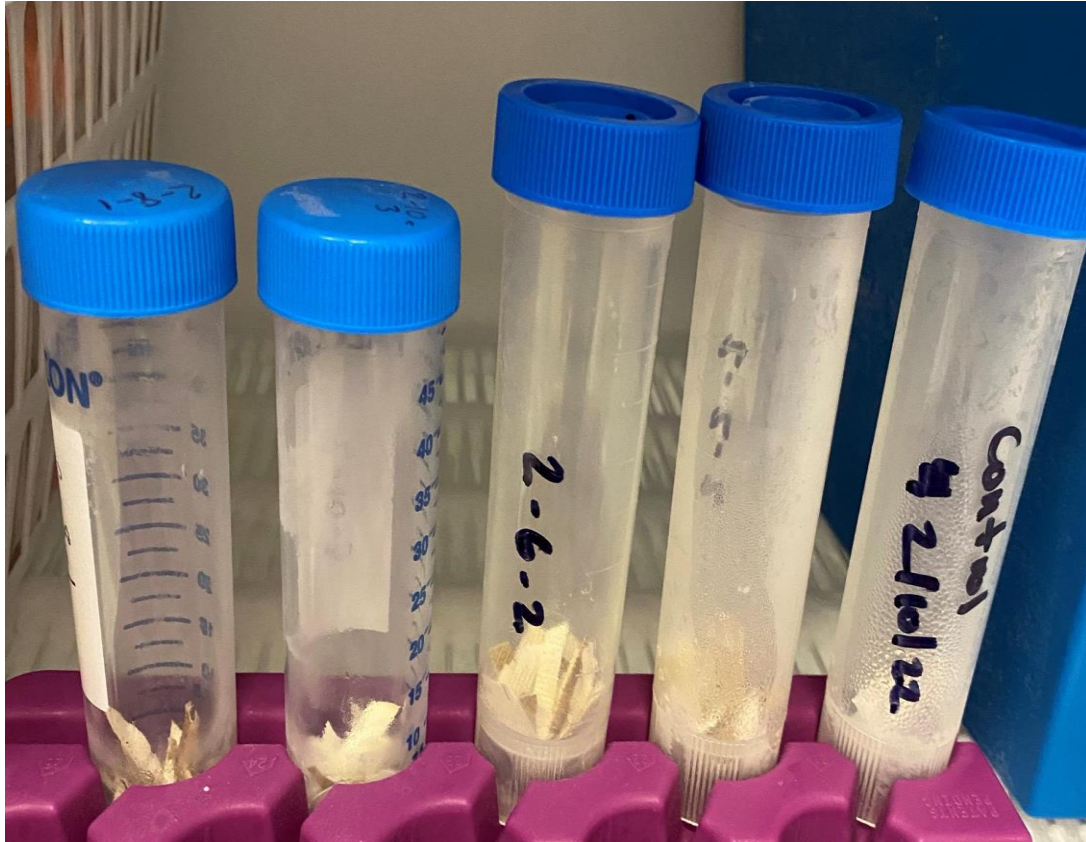


eDNA Collection

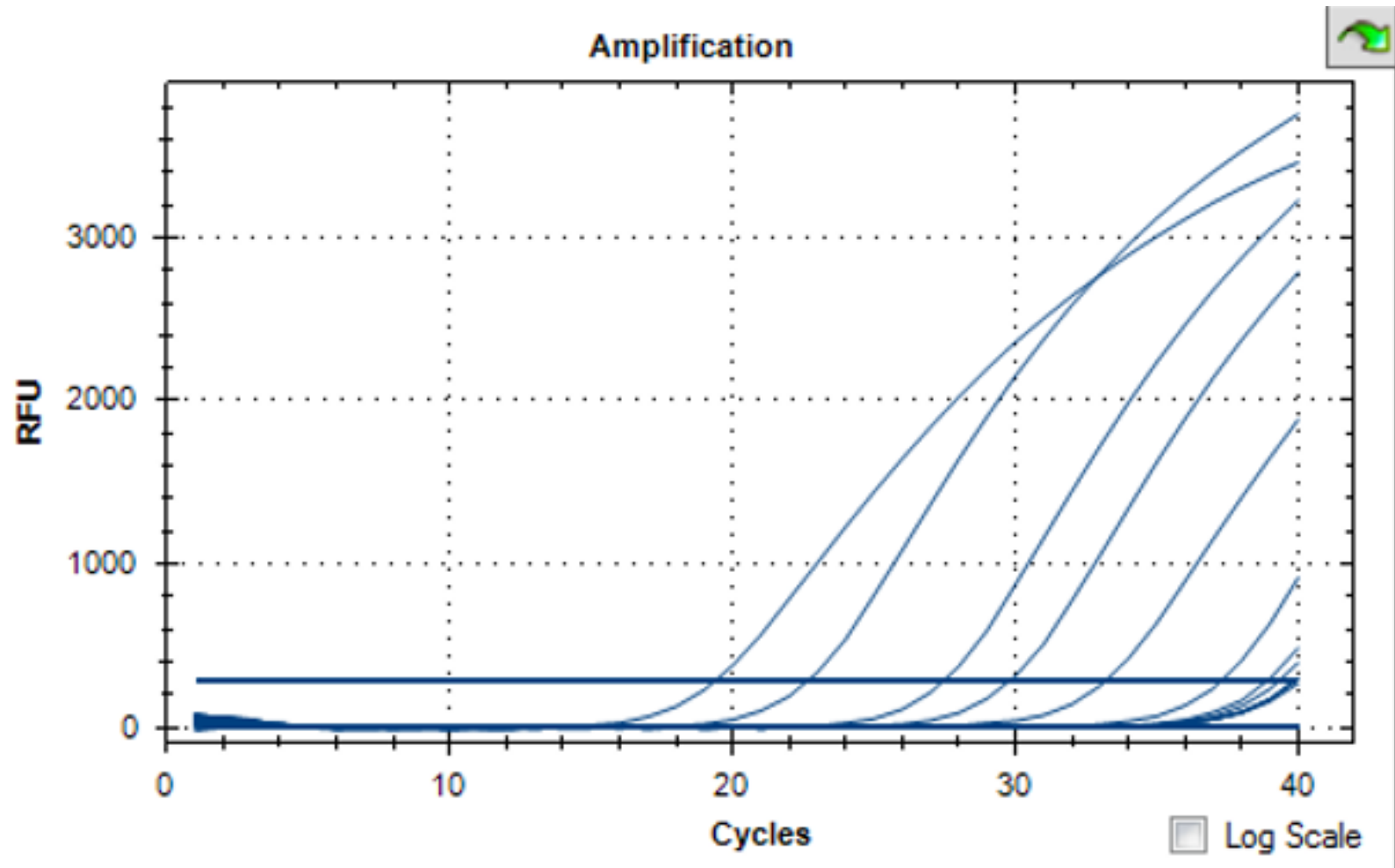
eDNA filtering



eDNA extraction



qPCR – Atlantic Sturgeon



Date	Location	Positive PCR
3/19/21	LD1	none
3/30/21	LD1	Surface
4/13/21	LD1	Bottom and Surface
4/28/21	LD1	Bottom and Surface

- No hits the week of 3/15, but every other week sampled see sturgeon at LD1
- Hits at surface in all instances so Van Dorn sampler not necessary below LD1
 - Water already churned up from the dam? May still need in lentic waters.
- Still optimizing PCR protocols
- Correlate eDNA, electrofishing, and telemetry data

Sturgeon eDNA – positives

Shad eDNA update



- Louis Plough developed Shad probe
- We will be field testing – comparing eDNA to electrofishing and telemetry data
- Will start running PCRs next month on 2021 samples

1. Buckhorn Dam
2. Lillington
3. Fayetteville
4. Above Lock and Dam 3
5. Below Lock and Dam 3
6. Tar Heel
7. Above Lock and Dam 2
8. Below Lock and Dam 2
9. Elwell Ferry
10. Above Lock and Dam 1
11. Below Lock and Dam 1



2022 Sampling

- Expanded from 4 to 11 sites
- Feb. 4th through first week of May
- 477 samples