

Lake Gaston

Stakeholders Group Meeting

February 11th, 2021



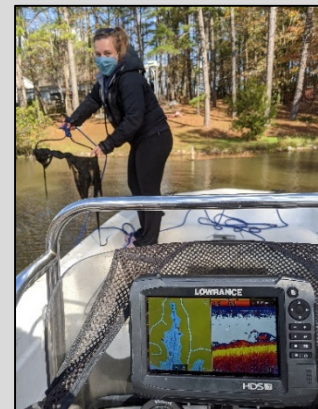
Jessica R. Baumann

Extension Associate, Lake Gaston
Aquatic Plant Management Program



2021 Lyngbya Treatments

- Timeline
- Treatment Acreage



Timeline to 2021 Lyngbya Treatments

January 6th

- First TAG meeting was held to discuss recommendations regarding increased treatment acreage

Timeline to 2021 Lyngbya Treatments

- WCC has to approved it's upcoming budget prior to results of previous year
- July 2020: WCC approved a budget that included up to 300 acres of treatment for lyngbya (currently treating 91 acres)
- Early TAG meeting: *Is that amount of treatment appropriate?*

LGWCC FY 2019-2020 Actual to Budget and 2020-2021 Budget

Note: treatment acreage	Hydrilla	83	130
	Lyngbya	91	300

FY 2020-2021 Approved Budget as of 7/30/20

Timeline to 2021 Lyngbya Treatments

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February

- **Request for applicator proposal/bid are submitted to LGWCC**
 - **Acreage needed for proposal/bid**
 - **Protocol and site location by March**

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- **February 11th** – Stakeholders Meeting
- **February 18th** – Second TAG meeting will be held to discuss treatment protocols and expanded treatment areas

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March

- TAG recommendation for complete treatment design presented to LGWCC
- Treatments begin when water temperature exceed 64 °F (*late March – late April*)

2020 Preliminary Results

2020 Treatments:

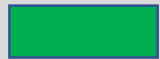
- Monthly between April and September
 - Historical Sites (~100 acres)
 - **Experimental Plots**



Experimental Plots



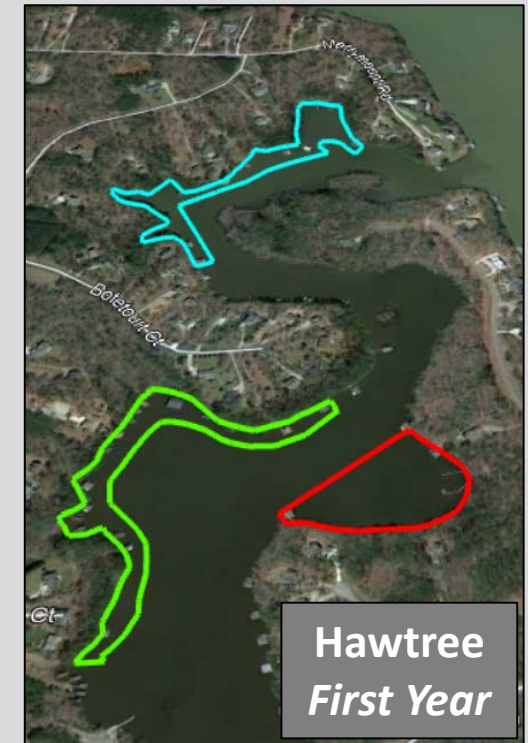
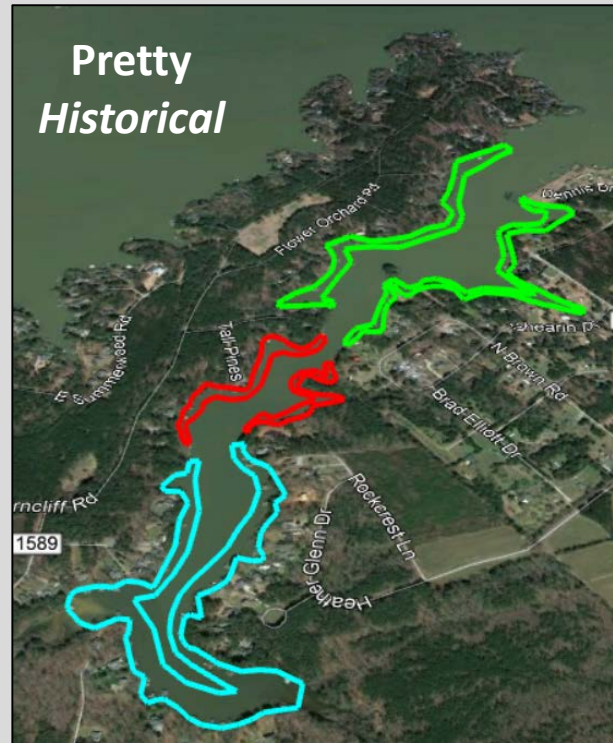
Control



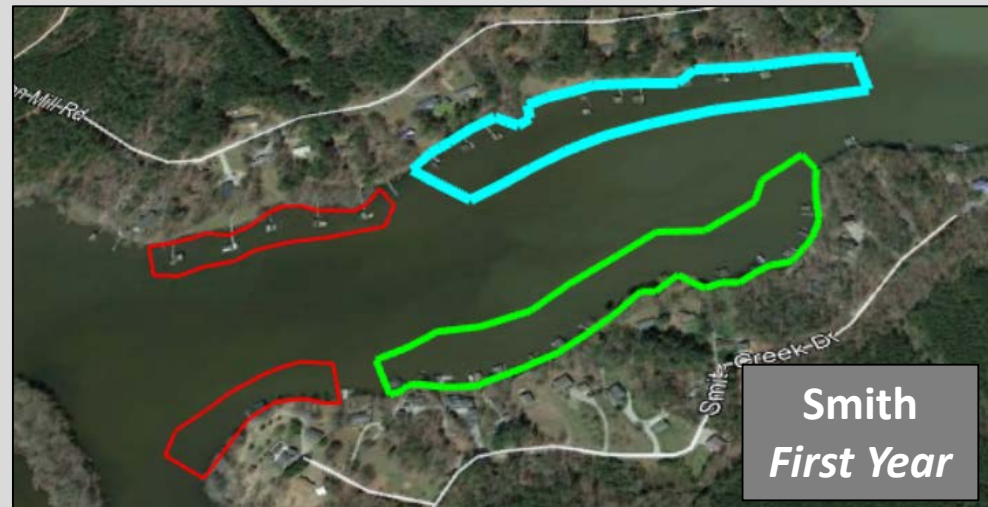
Applied
Biochemist



SePRO



Hawtree
First Year

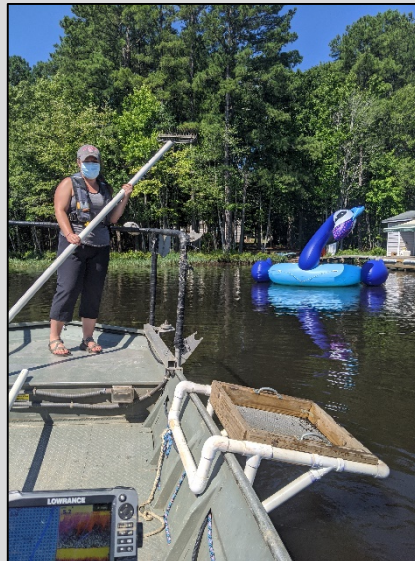


Smith
First Year

2020 Preliminary Results

2020 Treatments:

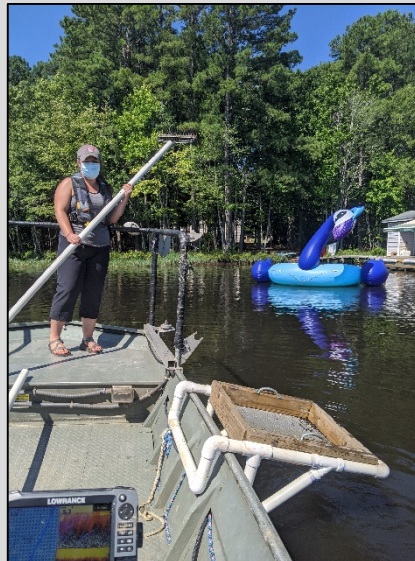
- Monthly between April and September
 - Historical Sites (~100 acres)
 - Experimental Plots
 - Historical Treatment Combinations
 - Captain XTR & Diquat / Algimycin & AMP
 - **Cutrine Ultra & AMP**



2020 Preliminary Results

Methods of Evaluation:

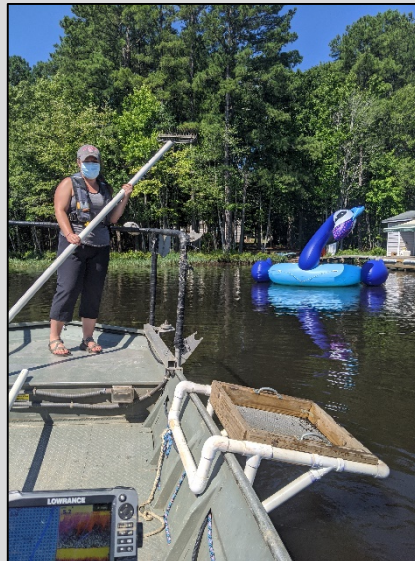
- Monthly Biosonic Scans (April – Present)
- Monthly Biomass Sampling (July – October)
- Yearly Volunteer Vegetation Survey (September – October)
- Viability Samples (December)



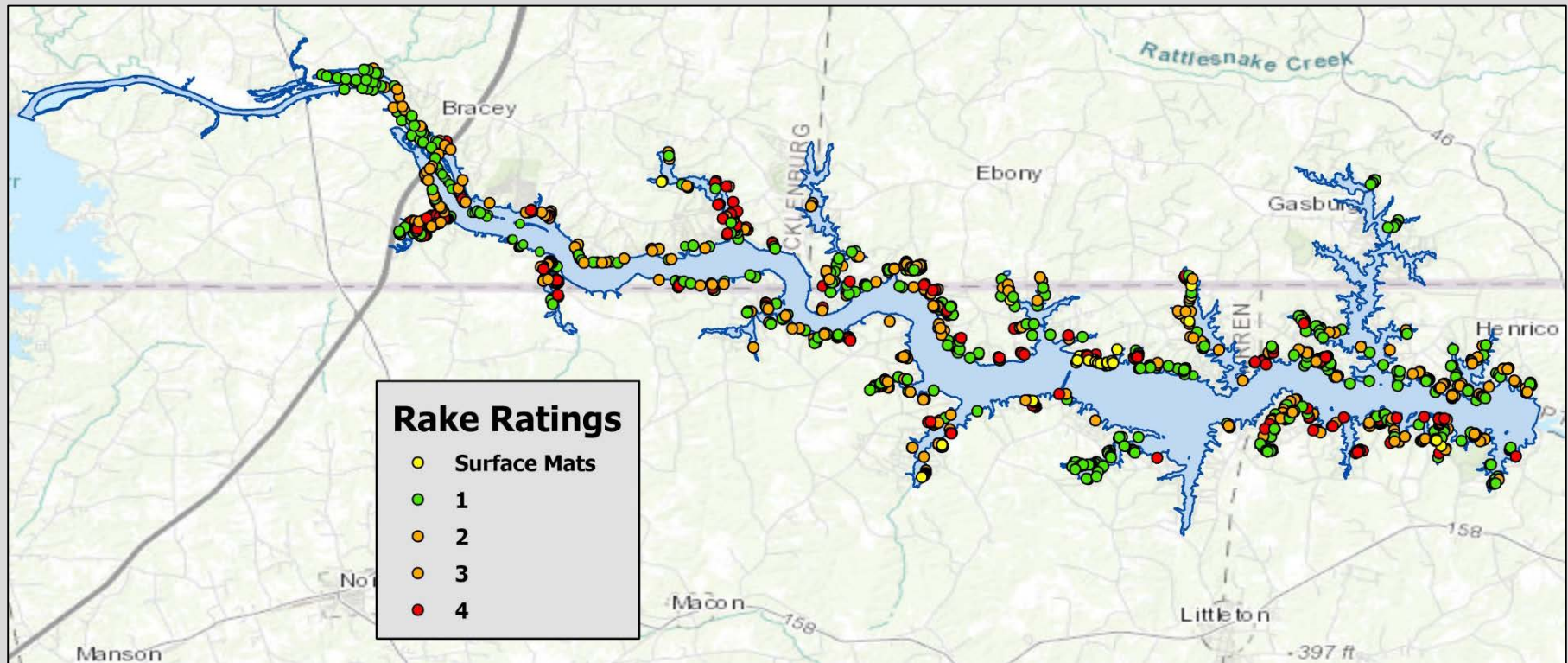
2020 Preliminary Results

Methods of Evaluation:

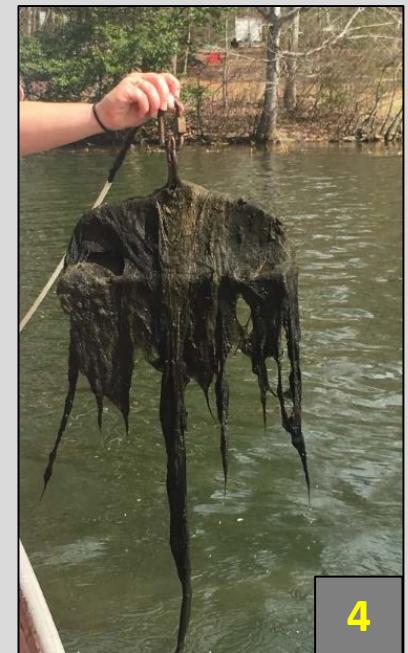
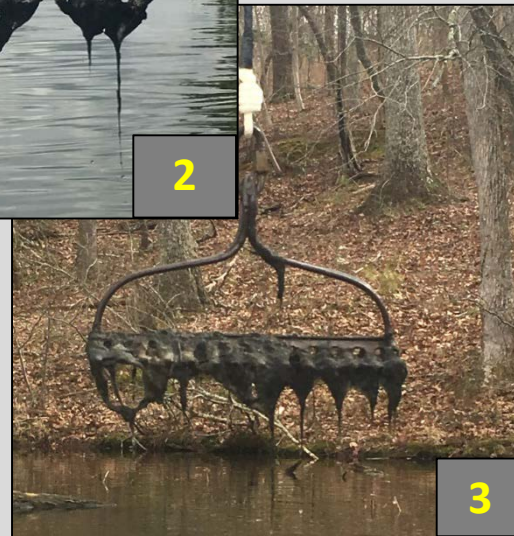
- Monthly Biosonic Scans (April – Present)
- Monthly Biomass Sampling (July – October)
- **Yearly Volunteer Vegetation Survey (September – October)**
- **Viability Samples (December)**



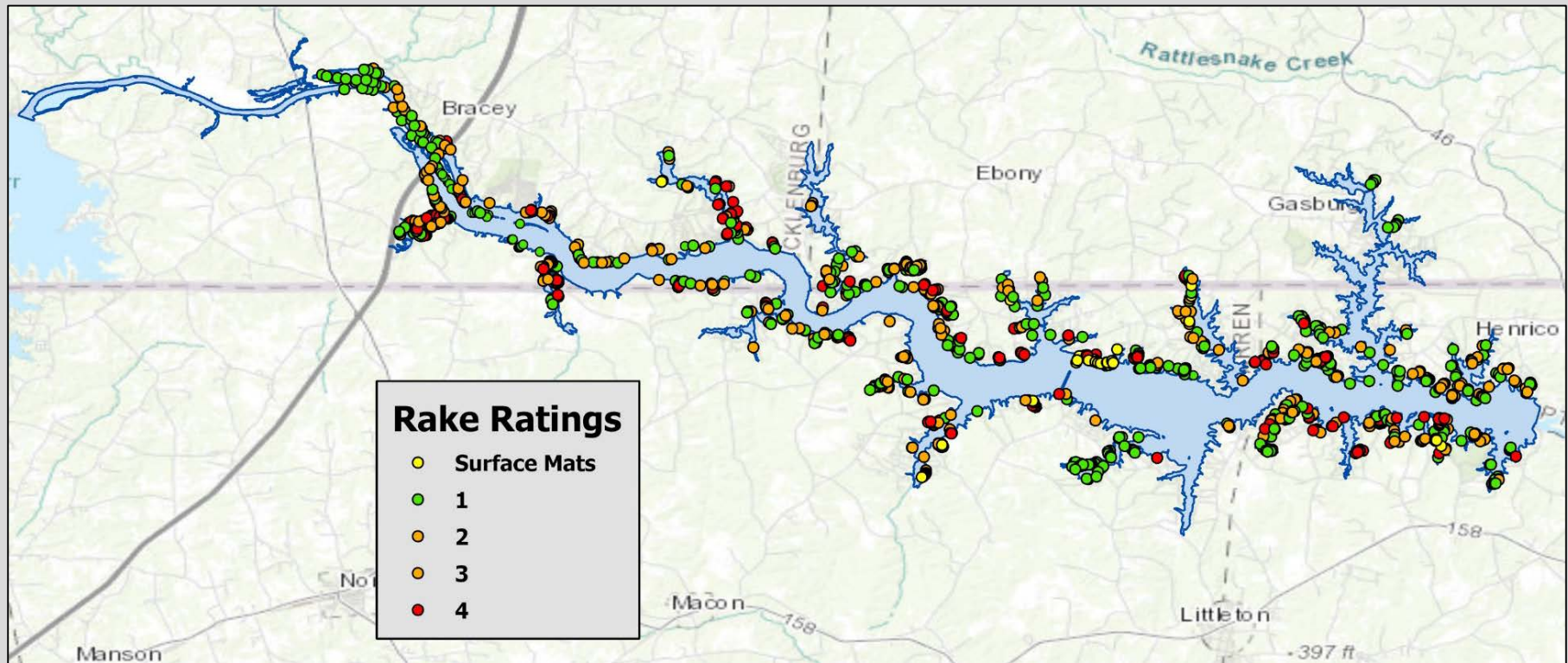
2020 Preliminary Results



Total Survey Sites: 5,368



2020 Preliminary Results



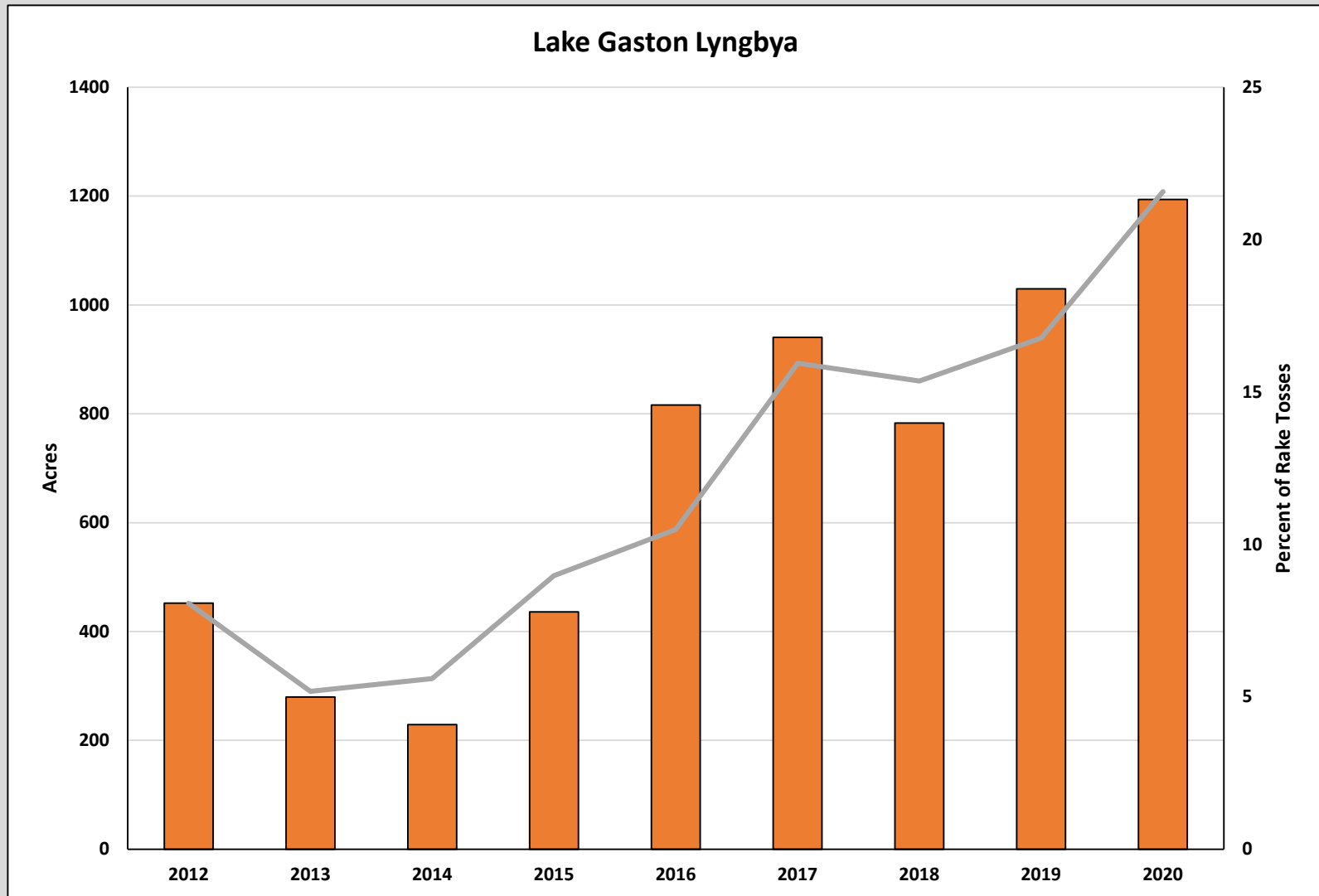
Total Survey Sites: 5,368

Lyngbya: 1,158

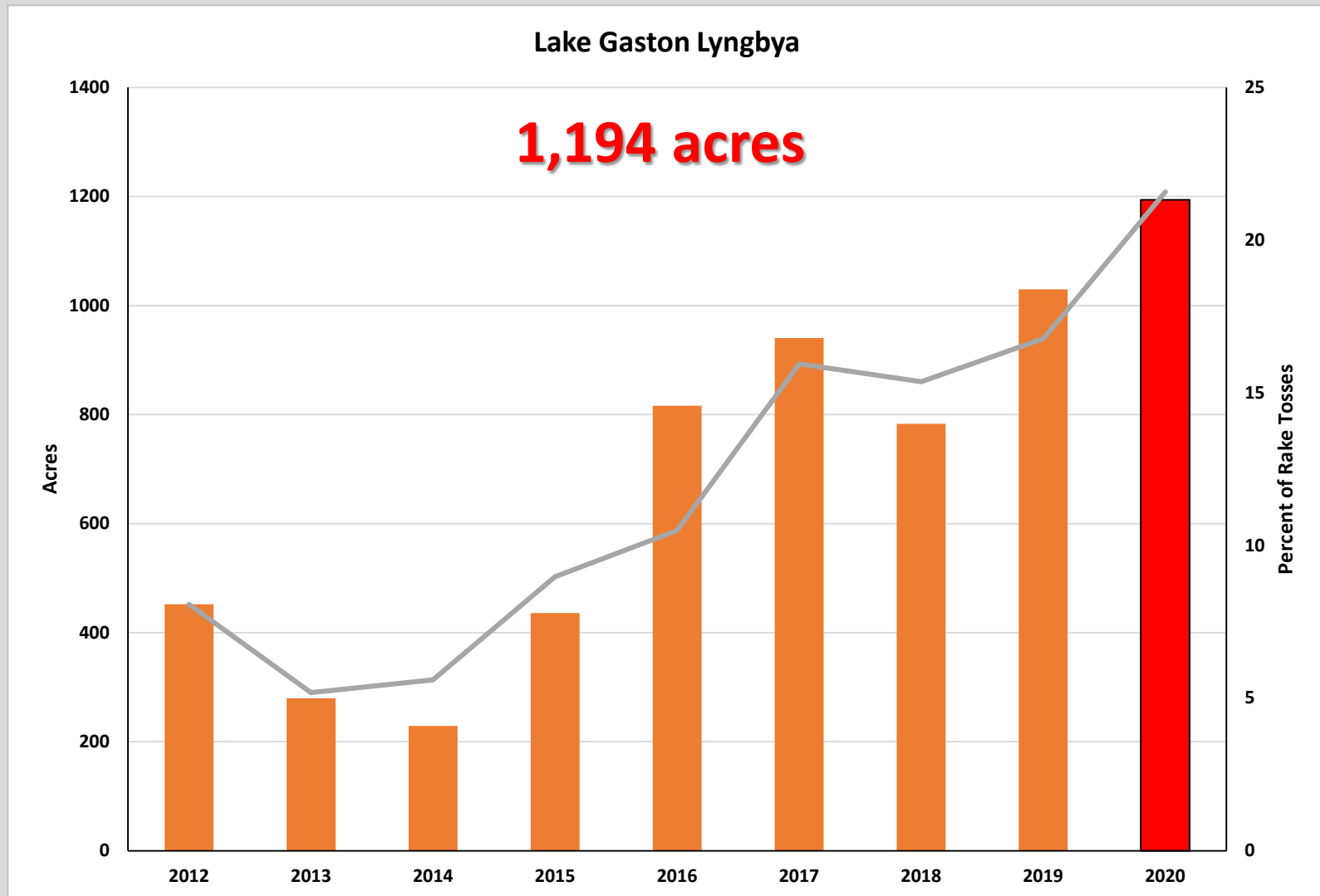
22% of all survey sites

30% of vegetated sites

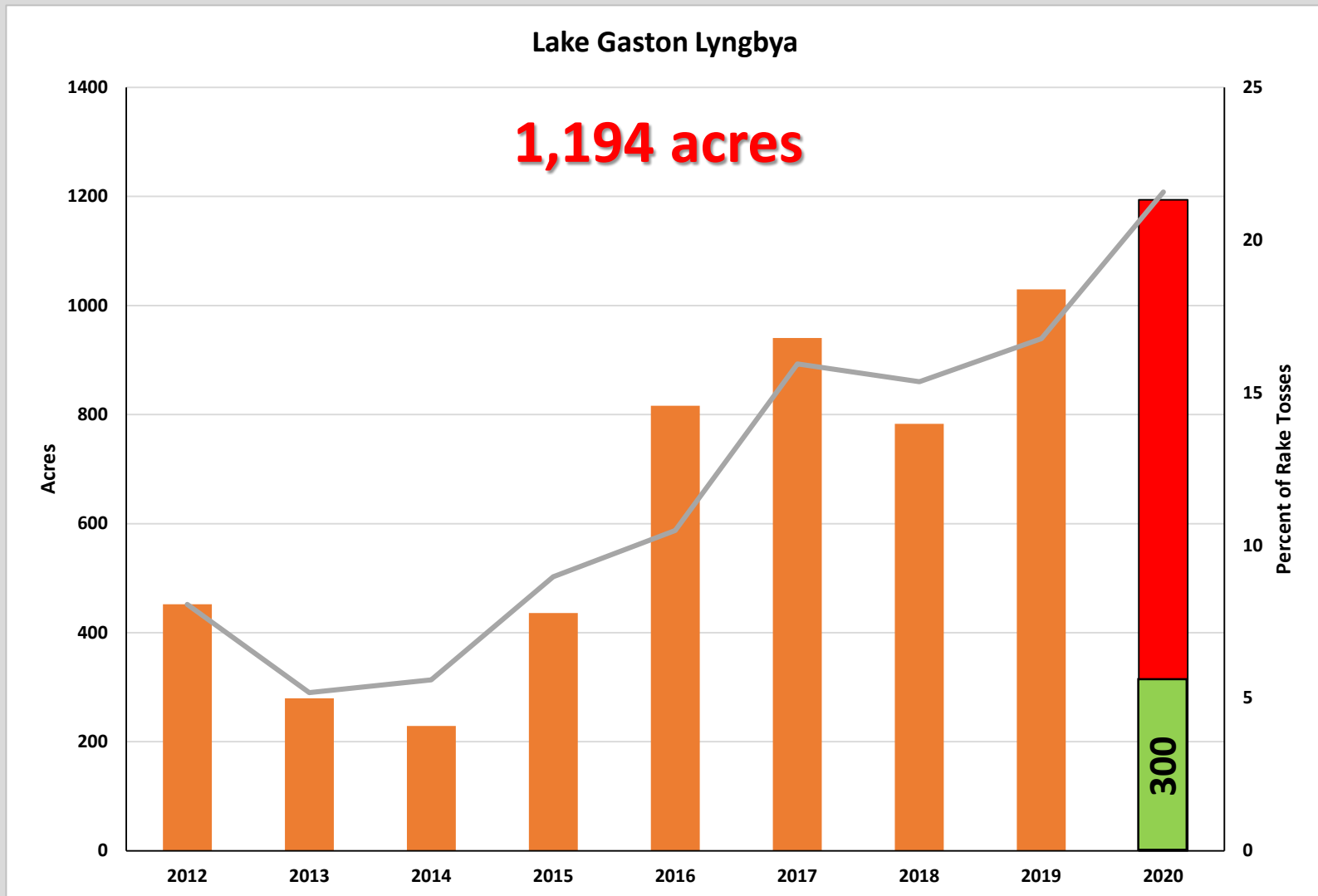
2020 Preliminary Results



2020 Preliminary Results



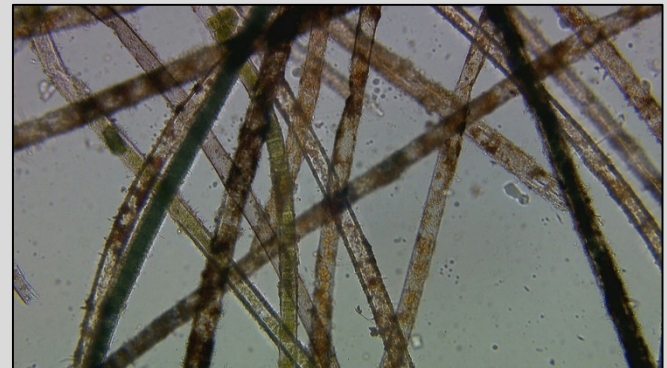
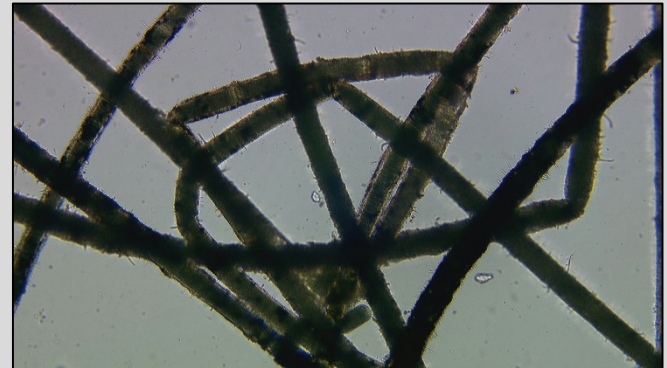
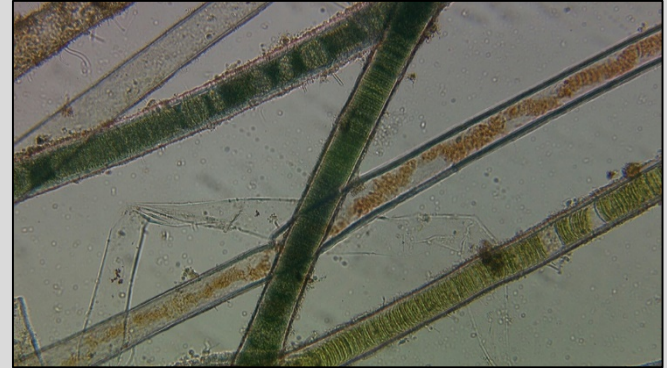
2020 Preliminary Results



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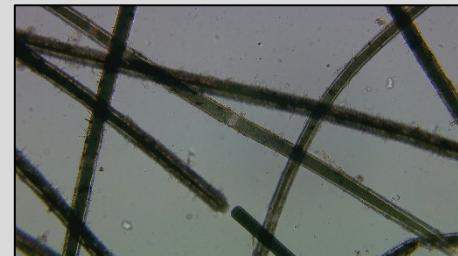
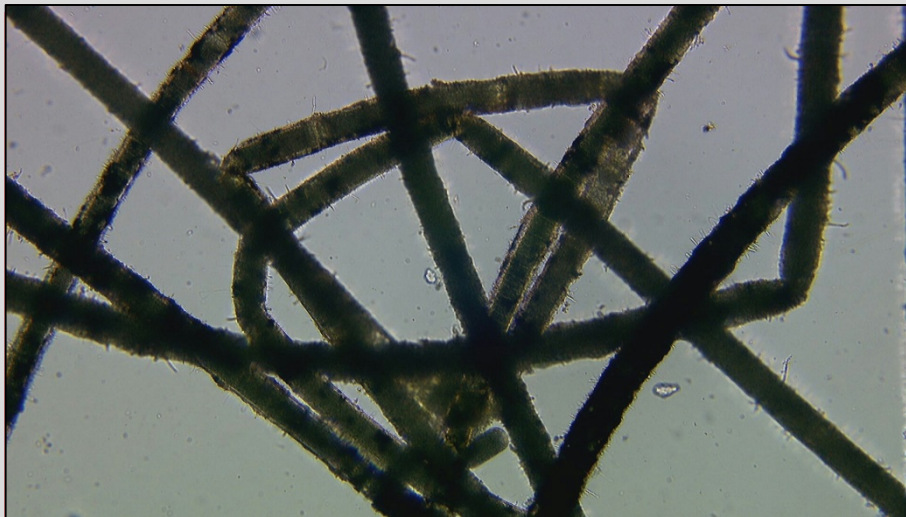
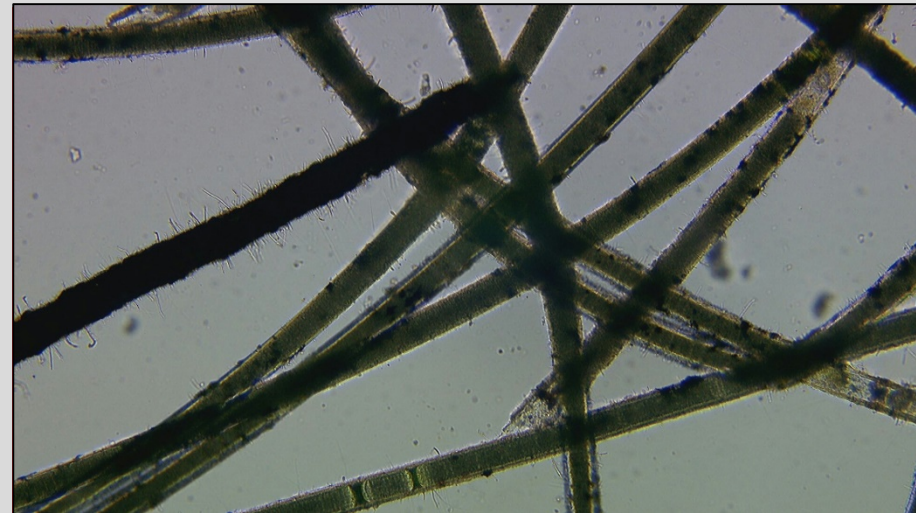
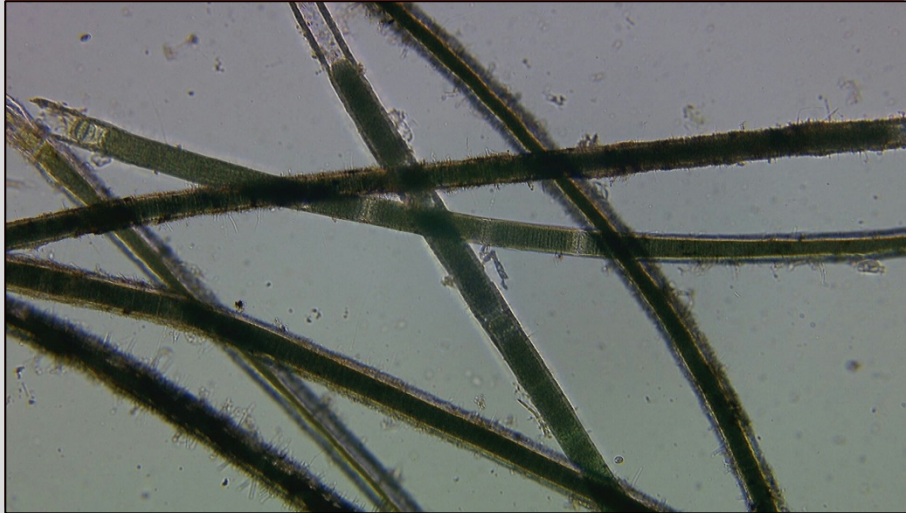
Viability Samples

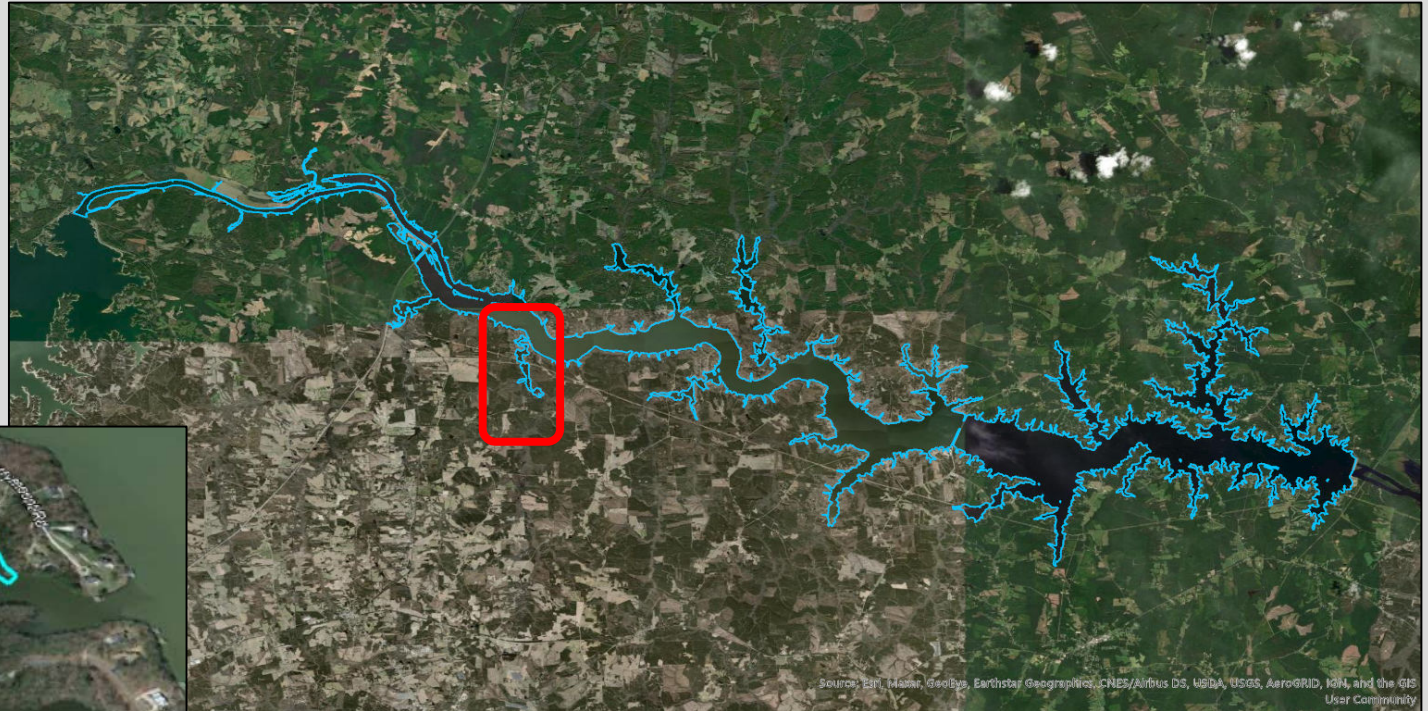
- Monthly samples collected from July to October
 - *Damaged*
- New samples were collected in December from Hawtree, Smith, and Control sites



2020 Preliminary Results

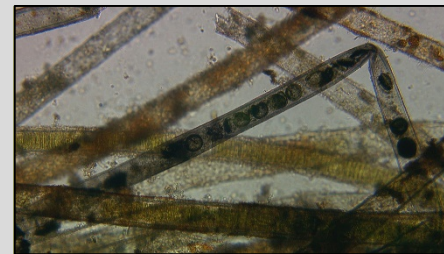
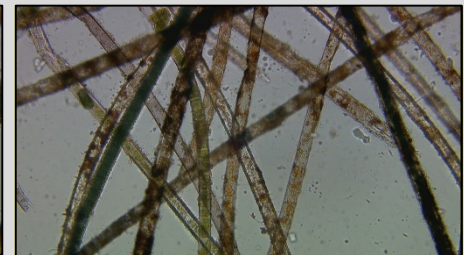
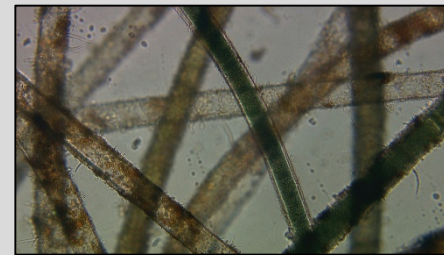
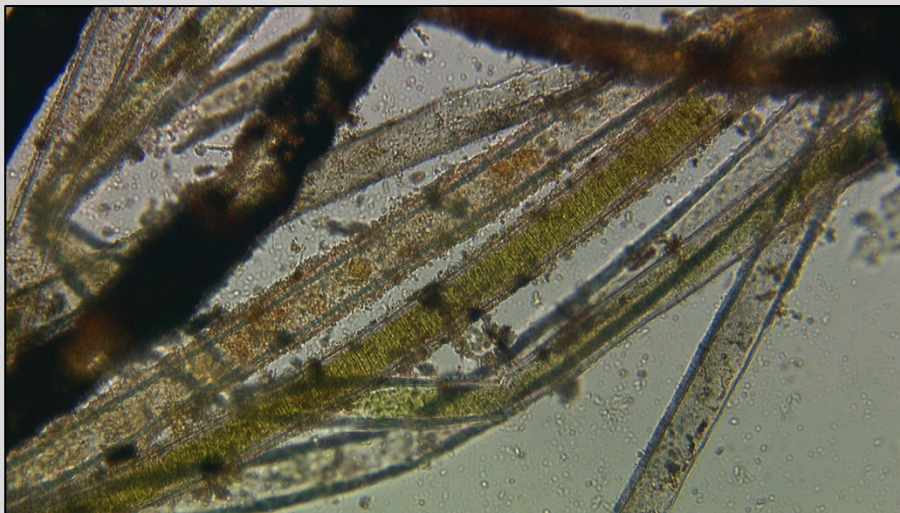
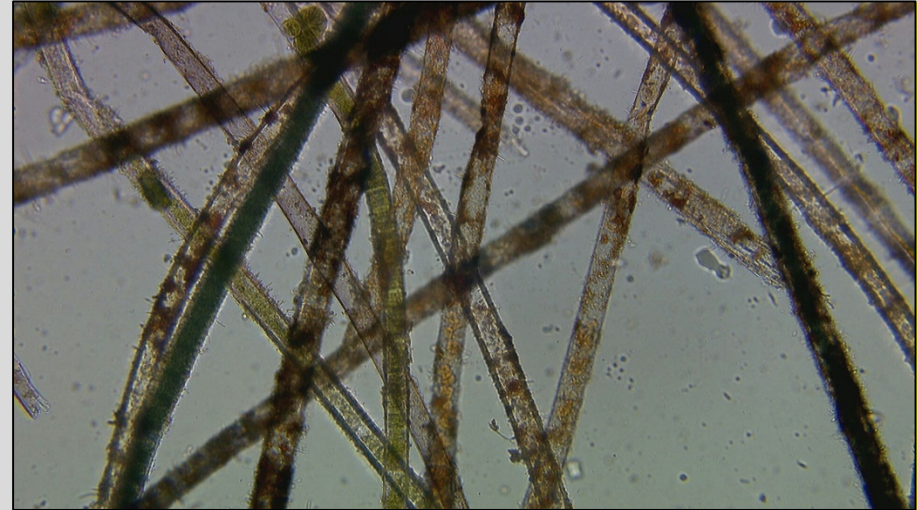
Control Site





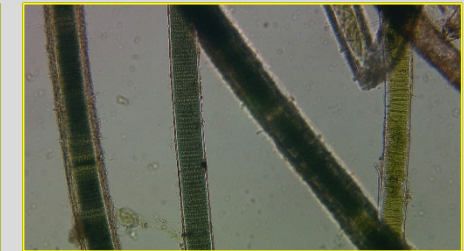
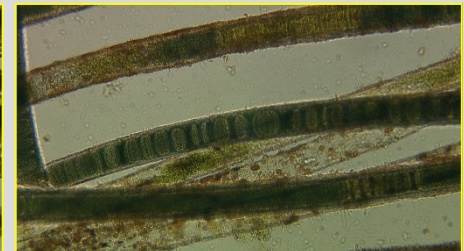
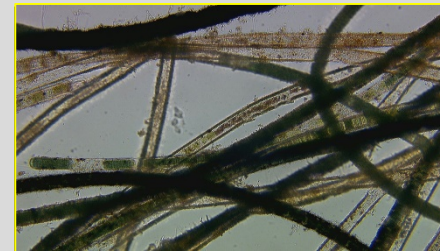
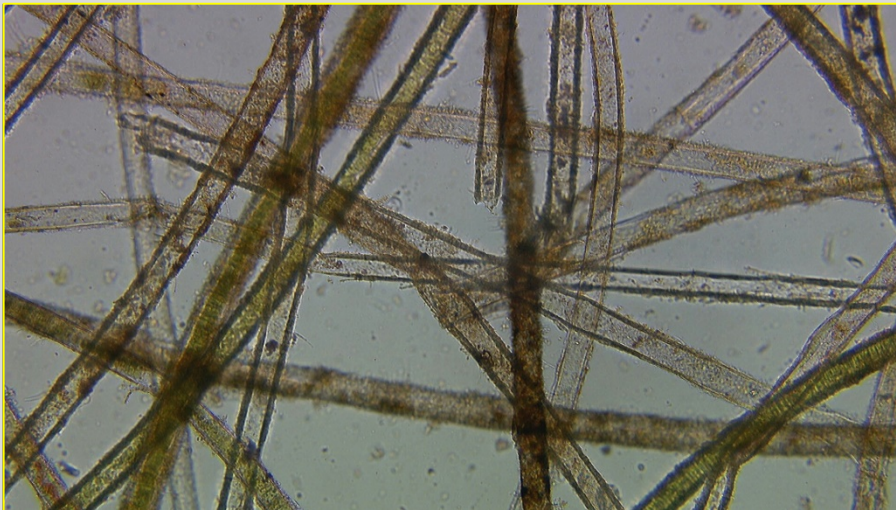
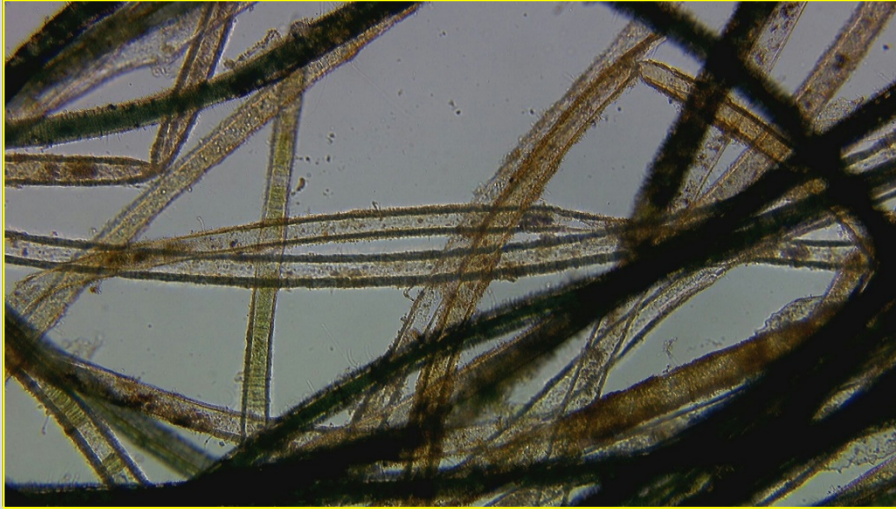
2020 Preliminary Results

Hawtree – Captain XTR



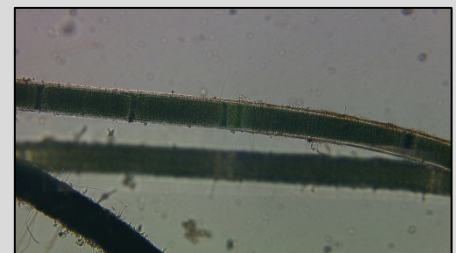
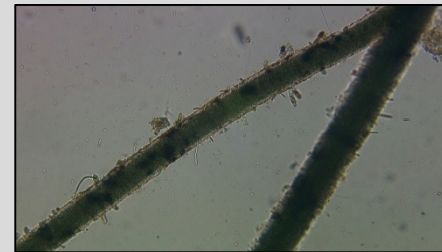
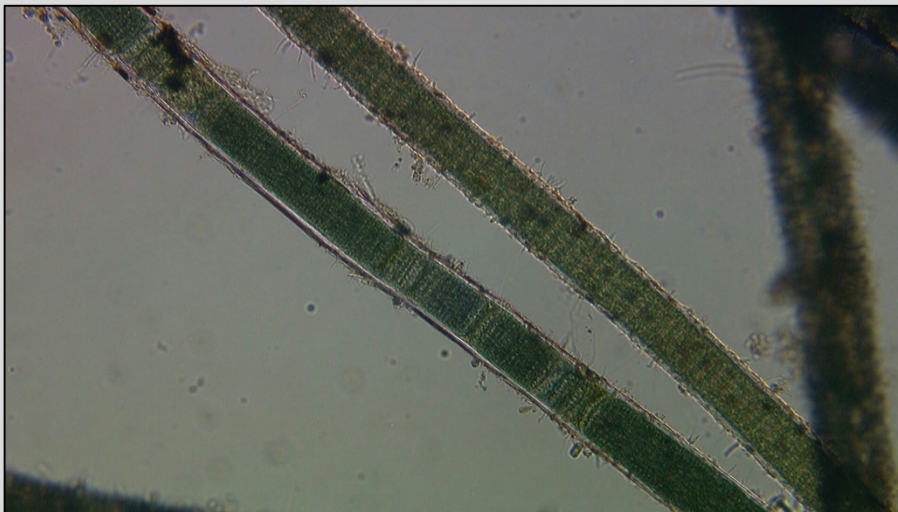
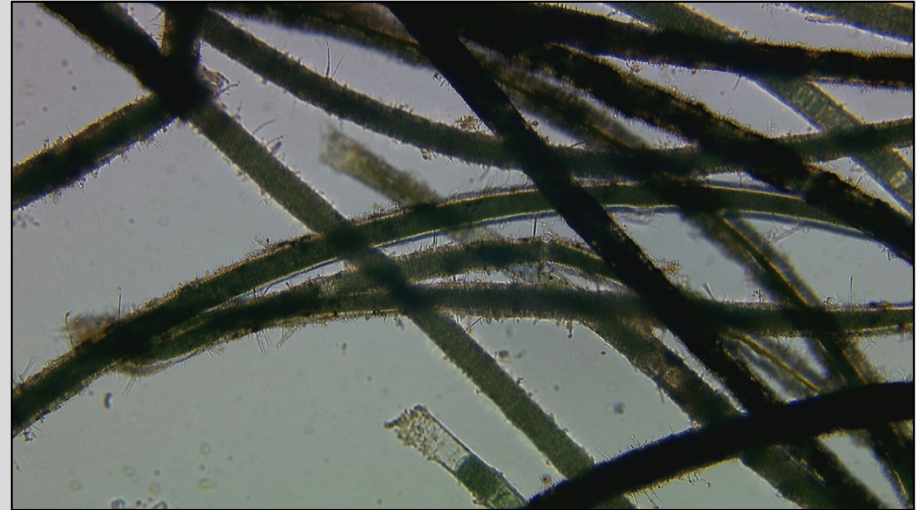
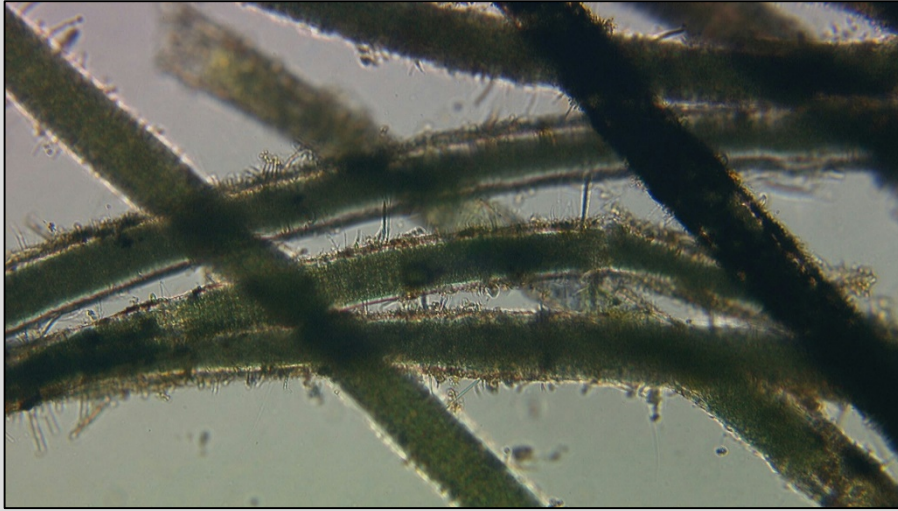
2020 Preliminary Results

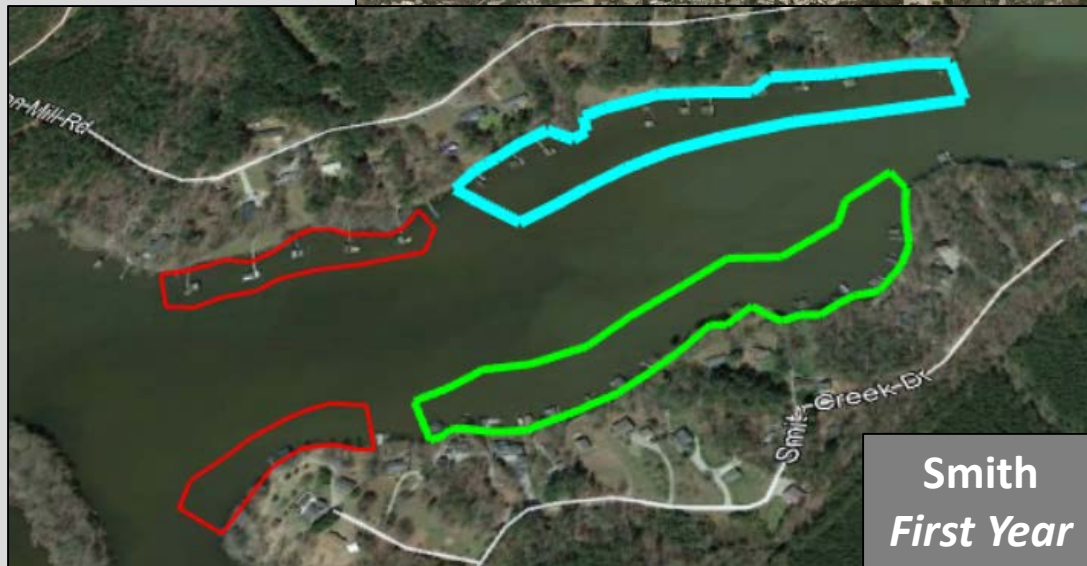
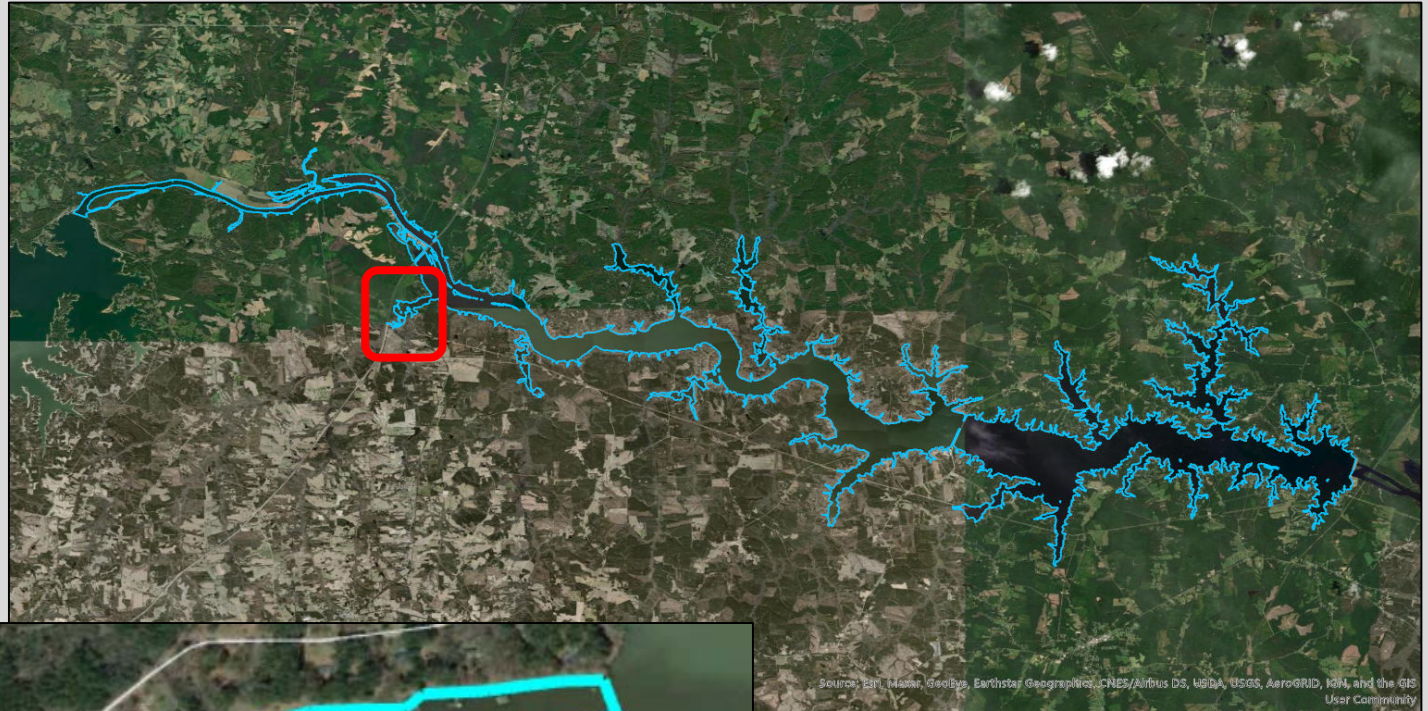
Hawtree – Cutrine Ultra



2020 Preliminary Results

Hawtree – Control

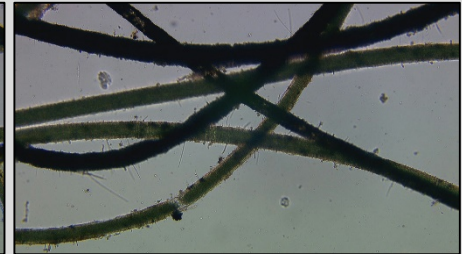
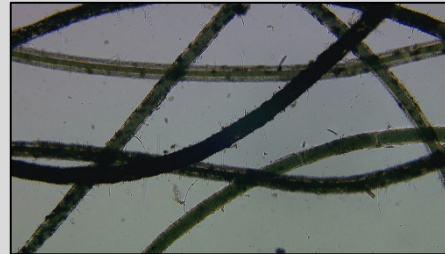
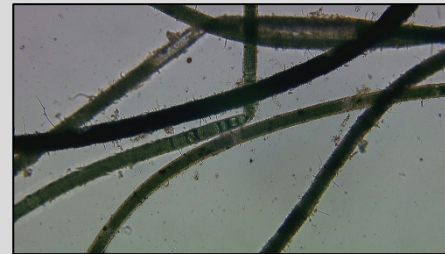
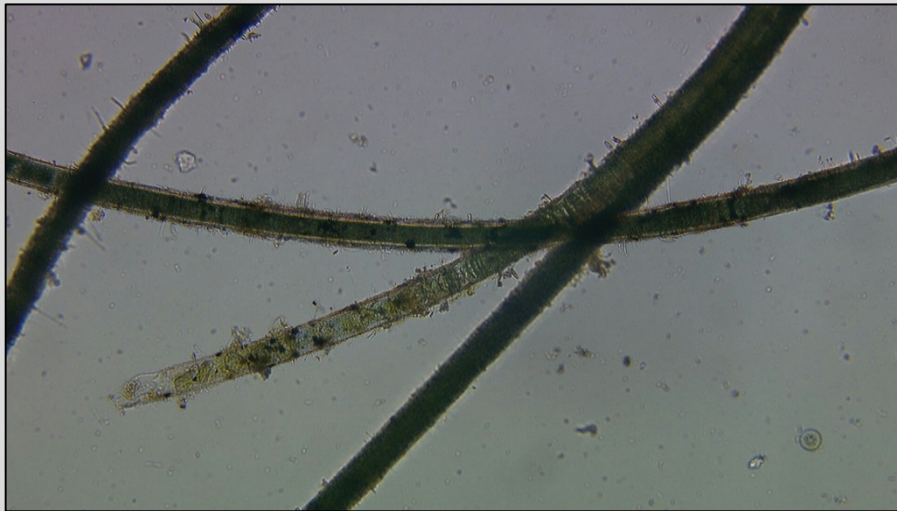
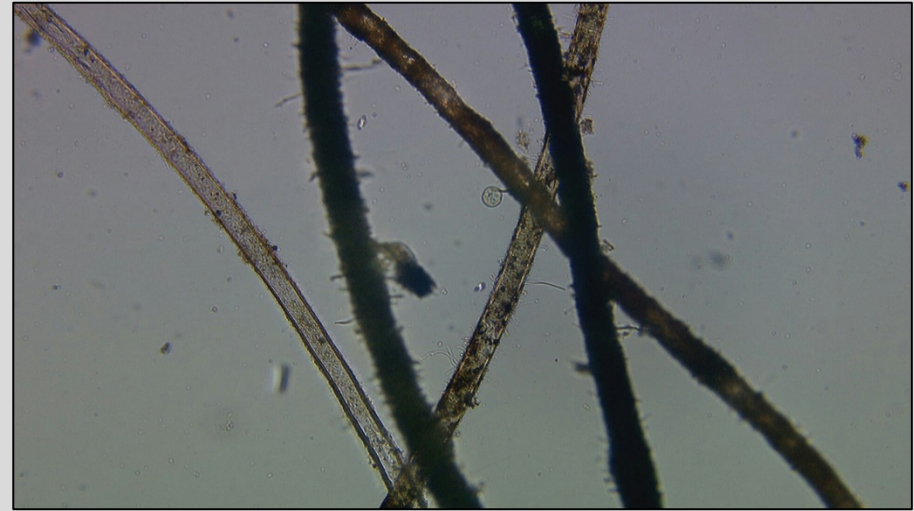
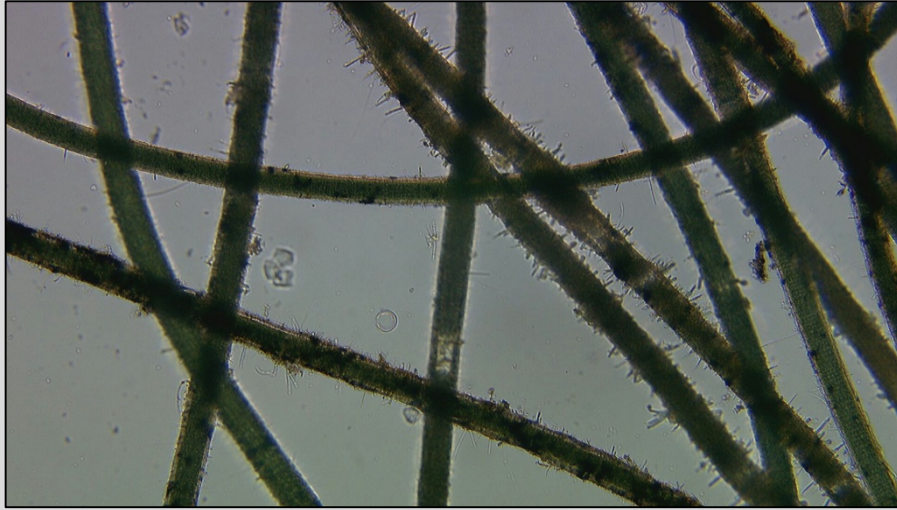




Smith
First Year

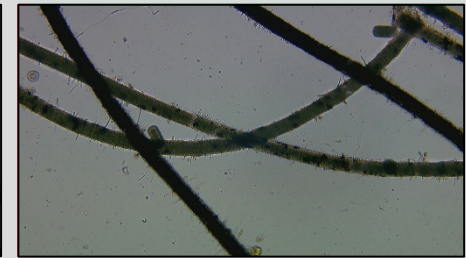
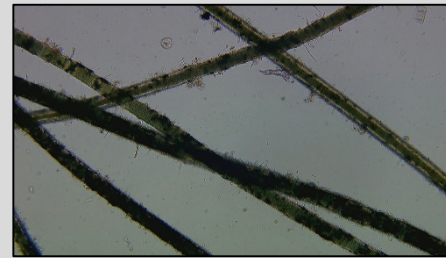
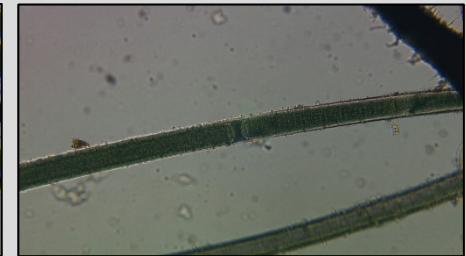
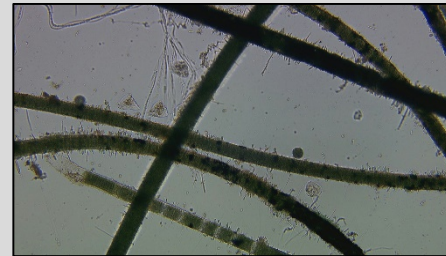
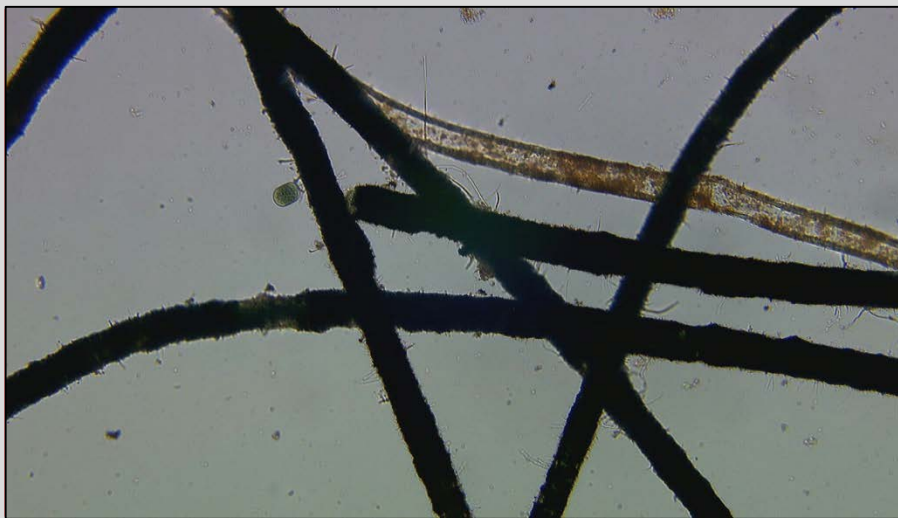
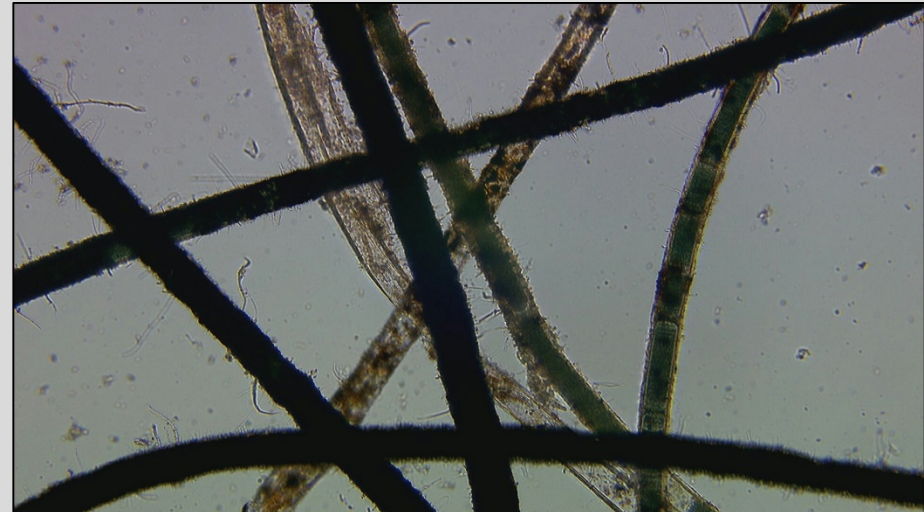
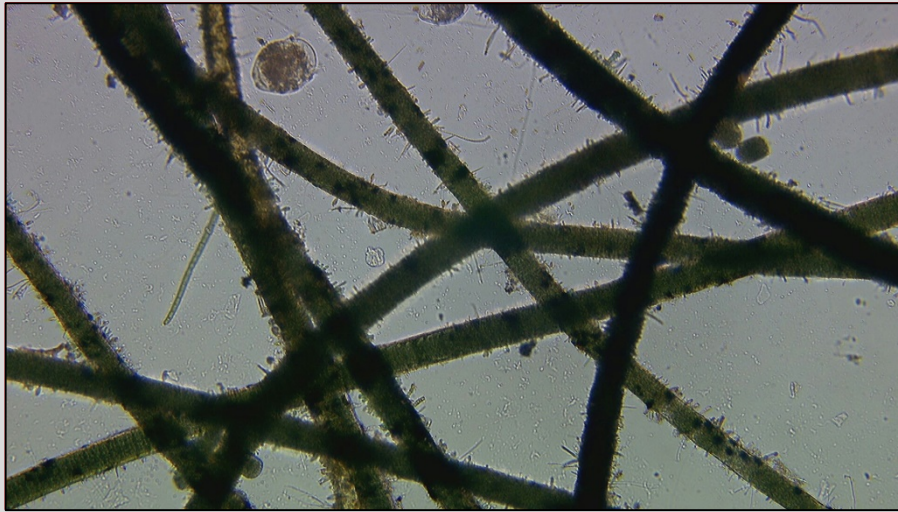
2020 Preliminary Results

Smith – Captain XTR



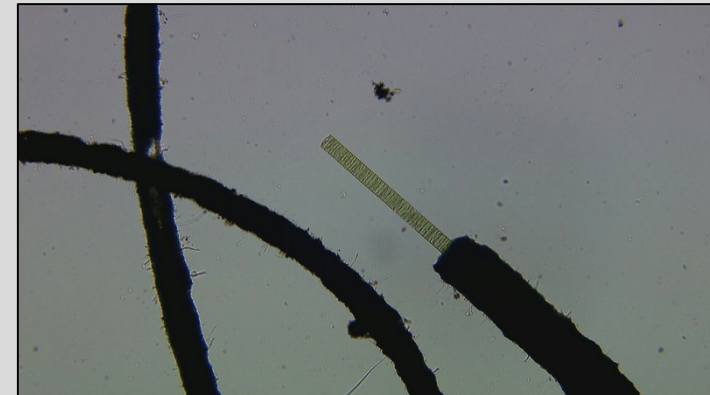
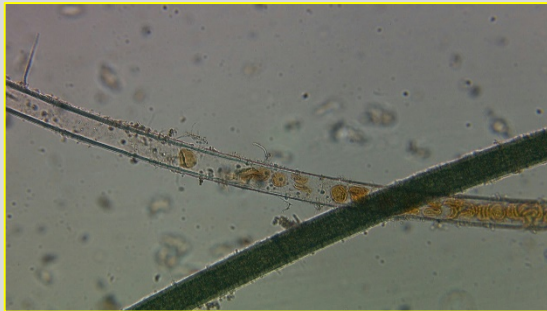
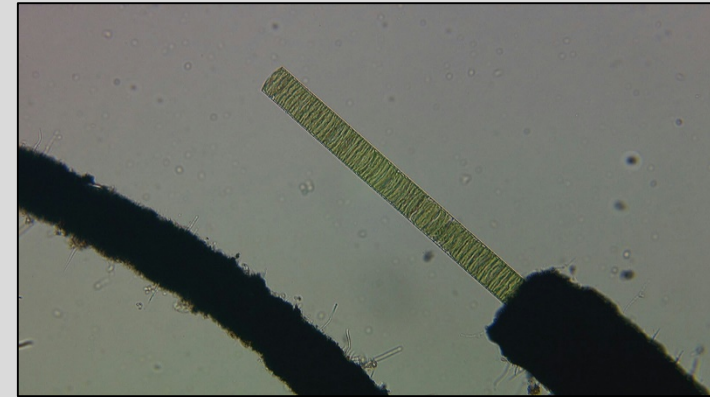
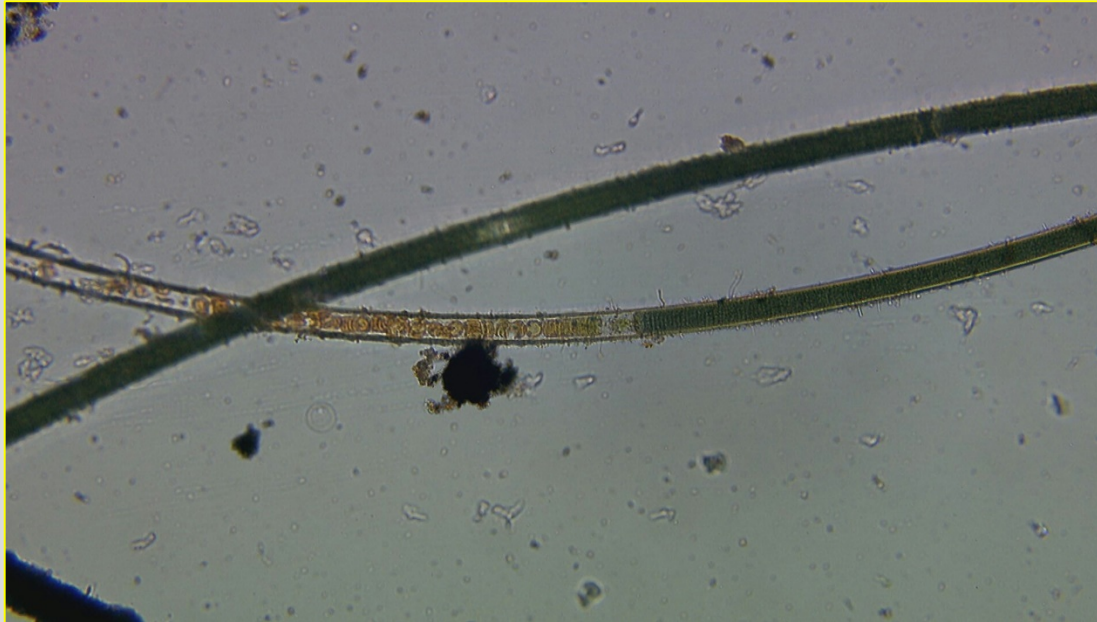
2020 Preliminary Results

Smith – Cutrine Ultra



2020 Preliminary Results

Smith – Cutrine Ultra



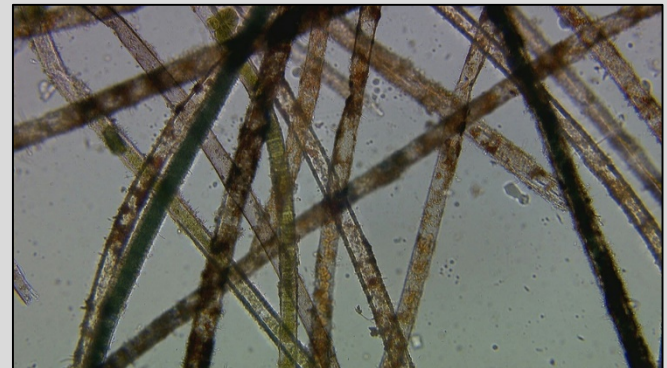
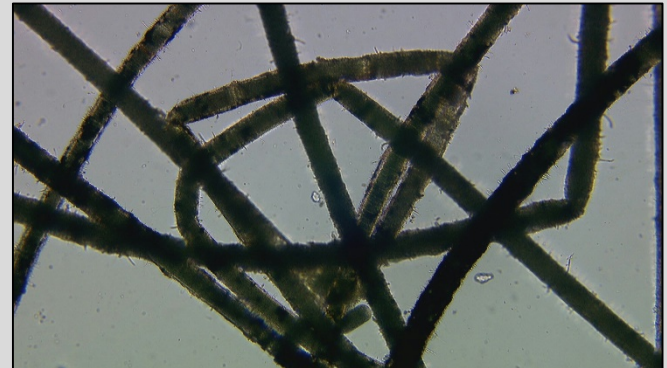
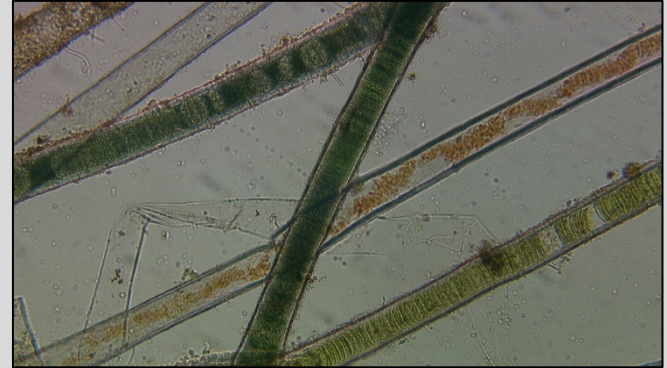
2020 Preliminary Results

Survey Results

- Increasing trend for percent of lyngbya detected in volunteer rake tosses
- Increasing trend for overall lyngbya acreage

Viability Samples

- Cellular damage occurring in Hawtree using both treatment protocols
- Level of efficacy not observed in Smith Creek



TAG Recommendation

- Treat a maximum of 300 acres of lyngbya in 2021

