

**Volunteer Biological Assessment Program
2025 Stream Data Collection Report for the Saco Watershed**



Macroinvertebrates collected by students at the Swift River in Tamworth, NH.

Green Mountain Conservation Group

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Acknowledgements

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Effingham Elementary School
Ossipee Central School
Pine Tree Primary School
Sandwich Central School
Kenneth A. Brett School
Freedom Elementary School
Madison Elementary School

Community Partners:

The Other Bakery
Indian Mound Golf Course
Scissors of Oz
Pat Hatfield

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Table of Contents

Introduction	4
Methods	4
Sampling Sites	5
Data Collection	5
Macroinvertebrate Sorting and Identification	5
Biotic Index Computation	6
Water Quality Results	8
Future Recommendations	12
Appendix A: Site Maps and Pie Charts of Macroinvertebrates	13
Appendix B: Site Data Sheets	19
Appendix C: Microplastics Photos	25
Appendix D: Works Cited	28

Introduction

Since 1997, the New Hampshire Department of Environmental Services (NHDES) has conducted stream surveys to determine the health of aquatic ecosystems. As part of these efforts, NHDES developed a preliminary screening protocol for first-order through fourth-order streams that is appropriate for volunteers from the general public to evaluate the biological condition of aquatic macroinvertebrate communities. The goals of the protocol are as follows:

- To educate the public about water quality issues as interpreted through biological assessments;
- To build a constituency of individuals who will practice sound water quality management at the local level; and
- To build public support for water quality protection.

Since 2006, Green Mountain Conservation Group (GMCG) has collaborated with NHDES, NH Fish & Game (NHFG), and local volunteers and schools for the Volunteer Biological Assessment Program (VBAP). While NHDES no longer oversees the program “due to lack of staff support” according to David Neils, Chief Aquatic Pollution Biologist, GMCG continues to offer the VBAP program to schools in the Ossipee Watershed for educational purposes following the recommendation of NHDES and NHFG. In recent years, the program has expanded to additional schools and sites outside of the Ossipee Watershed, including parts of the greater Saco River Watershed in Conway, NH and Porter, ME.

In 2025, GMCG worked with students and teachers from seven local schools across the Saco Watershed in New Hampshire and Maine to collect, sort, and analyze macroinvertebrates at six sites. As monitoring continues, data will continue to be evaluated and analyzed for any trends or water quality issues.

Methods

Prior to sampling, a training was held in June at GMCG’s Conservation Center for AmeriCorps members, GMCG staff, and volunteers to learn about delivering this program to school-age children. A training session was also held at each school for students and consisted of the following topics: macroinvertebrate identification, the importance of biomonitoring, macroinvertebrate sampling protocols, watersheds, riparian ecosystems, and aquatic food chains. These student volunteers were also trained to collect and record supplementary data for physical and chemical parameters of the rivers/streams, including: habitat assessments, stream measurements, pH, conductivity, temperature, dissolved oxygen, and turbidity.

In 2025, GMCG staff and AmeriCorps members also incorporated microplastics sampling as part of the program for the fifth consecutive year. Students were introduced in the classroom to the concept of microplastics in the environment and were able to collect water samples during the field day, which were later analyzed in GMCG’s water quality lab. Students collected a sample by placing a plankton net in an area with moving current. The net was left in the current for at least five minutes, and was retrieved. The water sample was then collected and transferred to a glass storage container. In the GMCG lab, 100 mL of each sample was filtered through a Buchner funnel with a 0.45 µm filter. After filtering, the filter paper was transferred to a glass plate for observation. This was done twice. The first sample was examined by students in their classroom using a white light microscope. The second sample had 10 mL of 10µg Nile Red

solution added, and was then examined in the GMCG water quality lab using a microscope equipped with blue light and an orange filter. Under these lighting conditions, nonpolar particles (i.e. plastic) treated with Nile Red appear fluorescent and can then be photographed (Appendix C).

Sampling Sites

All six sampling sites were accessible, wadeable, approximately 200 feet in length, first-order through fourth-order streams, and contained appropriate sampling habitat (defined by having at least one riffle, one pool, and one run with mixed cobble substrate).

Additional sites are sampled from spring through fall for GMCG's Regional Interstate Volunteers for the Ecosystems and Rivers of Saco (RIVERS) program, and have been periodically sampled by school groups in the past for VBAP. While some schools sample their adopted VBAP site annually, some are on an every-other-year schedule due to combined classes. Sampling for the 2025 school year was scheduled throughout September and October and required three to four hours per site.

Data Collection

The macroinvertebrate data collection for each site all used the following protocol:

- A 500-micron mesh kicknet was placed perpendicular to stream flow and held firmly against the streambed with the opening of the net facing upstream to promote macro invertebrate collection.
- A collector would disturb the sample area ($1/5 \text{ m}^2$) upstream of the net for a total of 60 seconds (30 second hand-scrub followed by a 30 second kick).
- The kicknet was carefully lifted out of the water and the contents of the net were emptied into a shallow container with a small amount of water. All organisms remaining on the net were carefully removed and added to the sample.
- The same process was repeated four additional times with each sample collected further upstream (spanning 200 feet). Collectively, active sampling time approximated five minutes within one square meter area at each sampling station.

Macroinvertebrate Sorting and Identification

For 60 minutes, participants removed macroinvertebrates from the selected portion of the final sample with spoons or pipettes and placed them into separate containers according to common attributes. After sorting, specimens were identified to their respective taxonomic group. Students were assisted by GMCG staff and/or trained volunteers with the process of identifying the macroinvertebrates in the sample. The number of macroinvertebrates within each taxonomic group was identified, calculated, and recorded for each site, before being combined to represent the watershed as a whole, as seen in Table 1.

Table 1. Total Macroinvertebrates Found Across the Ossipee Watershed in 2025. For individual site macroinvertebrate counts, see Appendix B.

Order	Common Name	Number of Macroinvertebrates
Ephemeroptera	Mayfly nymph	660
Plecoptera	Stonefly nymph	211
Trichoptera	Caddisfly larvae	362
Odonata	Dragonfly larvae	9
	Damselfly nymph	6
Diptera	Black fly larvae	15
	Midge larvae	19
	True flies	25
Megaloptera	Alderfly	1
	Hellgrammite	21
Coleoptera	Riffle Beetle	32
	Water Penny	5
Other	Crayfish	0
	Snails	0
	Aquatic Worms	25
	Scuds	0
	Sowbug	0
	Leech	0
	Water Mites	6
	Planaria	1

Biotic Index Computation

Biotic scores are based on pollution tolerance values ranging from 0 to 9 and are assigned to individual taxonomic groups. More tolerant groups have higher tolerance values and less tolerant groups have lower values. A standardized computational worksheet was used to calculate the biotic scores for each stream/river sample site. Taxonomic-specific biotic scores for individual samples were computed by multiplying the number of individual organisms by their respective tolerance value. The sum of these values for each taxonomic group produced the total biotic score for the waterbody, which was then divided by the sum of the total number of macroinvertebrates identified in the respective sample. Final biotic scores (Table 2) correspond to three narrative categories:

- Excellent (0 to 3.5)
- Good (3.5 to 4.8)
- Fairly Poor (greater than 4.8).

Tracking water quality scores over the long term will contribute to chemical and physical river and stream assessment data and add to our understanding of water quality conditions over time (Figure 1).

Table 2. The biotic score and the narrative category for each sampling site tested in the Ossipee Watershed. Five of the six scores fell into the “Excellent” category while one score fell in the “Good” category. Combined, these six sites produced a total score of 3.17.

School Group	Date	Location	Town	Total Macros	Biotic Score	Water Quality Score
Kenneth A Brett School	9/19/25	Bearcamp River	Tamworth, NH	200	668	3.34
Freedom Elementary	9/22/25	Cold Brook	Freedom, NH	241	719	2.98
Effingham Elementary	9/24/25	South River	Parsonsfield, ME	389	1198	3.08
Madison Elementary	10/2/25	Lovell River	Ossipee, NH	222	681	3.07
Sandwich Central School	10/3/25	Cold River	Sandwich, NH	220	698	3.17
Ossipee Central School	10/10/25	Swift River	Tamworth, NH	129	471	3.65

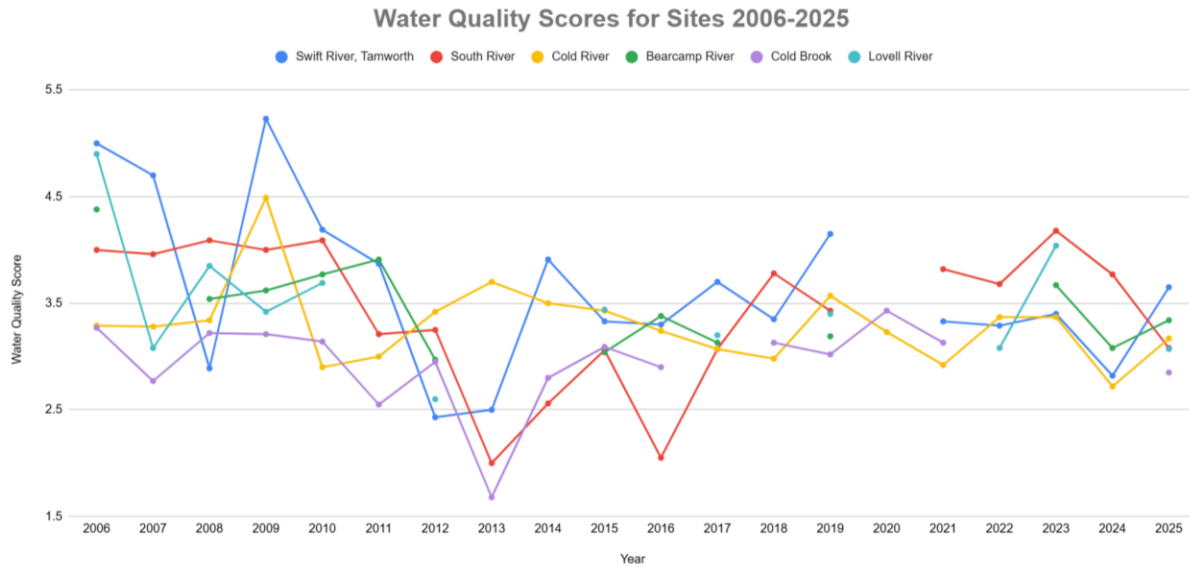


Figure 1. Water Quality Scores for river and stream sites sampled through VBAP over the past 20 years.

Water Quality Results

In completing the sampling effort, volunteers collected and identified 1,398 macroinvertebrates (Table 1). Mayfly nymphs were the most dominant taxon with 660 identified, making up 47% of all macroinvertebrates collected, followed by caddisfly larvae at 362 (26%) and stonefly nymphs at 211 (15%). Together, these three taxa comprised nearly 88% of all the individuals collected and are some of the least tolerant taxonomic groups. The average biotic score for all six sites was 3.17 and corresponds to the “Excellent” narrative category.

In addition to macroinvertebrate data, the water chemistry and physical parameters of each stream were also recorded. Physical parameters included canopy cover and observations of nearby erosion or human influence. Chemical parameters collected include pH, conductivity, temperature, turbidity, and dissolved oxygen. A multi-parameter submersible Hach water quality probe was used to collect pH, dissolved oxygen, conductivity, and temperature data (Table 3). Turbidity data was collected using a Hach turbidimeter and results were reported as the average of two water samples with a maximum allowable difference of 0.2 NTU (Table 3). Microplastics samples were collected using a standard plankton net.

Table 3. Chemical Parameters recorded at 2025 Sampling Sites.

Physical & Chemical Parameters	pH	Dissolved Oxygen (mg/L)	Conductivity (µS/cm)	Temperature (°C)	Turbidity (NTU)
Normal Range/Optimal Value	6.0-8.0	>5	< 100	< 21°C for trout & mayfly nymphs	< 10
Bearcamp River	5.5	9.79	52.6	16.3	0.39
Cold Brook	5	8.32	152.62	12.86	1.77
South River	6	7.82	63.7	12.9	2.68
Lovell River	6	11.5	28.2	10.5	0.24
Cold River	6.5	11.47	33.0	8.8	0.38
Swift River	5	11.94	39.73	7.92	0.71

Overall, all chemical parameters were conducive to supporting aquatic life. Across the six VBAP sites, the pH values reported were slightly lower than optimal, meaning the water was more acidic. pH values in streams are affected naturally by the bedrock or streambed material and the flow of groundwater into the stream. For example, streams with an underlying bedrock of limestone have a greater ability to buffer acidity in a stream and raise pH. As stated in GMCG’s RIVERS program data analysis, the waterbodies in the Ossipee Watershed are mostly underlain by granite rather than limestone, which does not have the ability to buffer acidity. According to the Saco River Corridor Commission’s (SRCC) 2021 report:

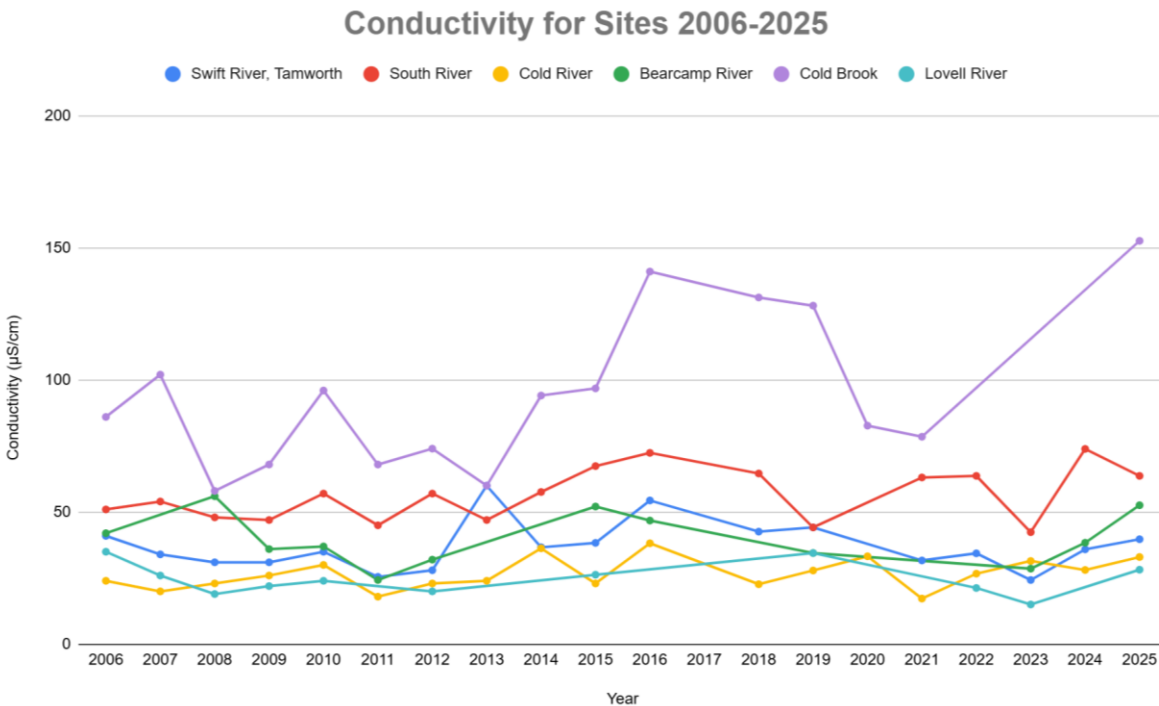
pH influences chemical and biological processes that occur in water and are essential for aquatic organisms. The ability of aquatic organisms to complete a life cycle greatly diminishes as pH falls below 5.0 or exceeds 9.0. Levels below 5.5 can severely limit growth and reproduction in fish, as is the case with brook trout in New England streams. Low pH can also allow toxic elements and compounds such as heavy metals to become mobile and available for uptake by aquatic plants and animals, which in turn can cause deformities in fish and produce conditions that are toxic to aquatic life. These low pH levels can be due to naturally occurring conditions, such as the influence of tannic and humic acids from decaying plants in wetlands. Low pH can also be influenced by industrial pollution in the form of atmospheric deposition of nitric and sulfuric acids in acid rain. The discharge of wastewater from treatment plants can also affect natural pH.”

Conductivity readings that were slightly elevated above natural background levels (100µS/cm²) were recorded at Cold Brook this year. Conductivity readings in water bodies tend to be indicative of how much salt is dissolved into the water, since saltwater is generally more conductive to electricity than fresh water. Conductivity levels are not a concern to the EPA (Environmental Protection Agency) unless they rise above 500 µS/cm² for rural areas or 1500 µS/cm² for urban areas, according to Jill Emerson, GMCG’s Water Quality Coordinator. While

conductivity levels across all VBAP sampling sites are within the safe range set by the EPA, the sites are all reporting higher than average values for 2025 (Figure 2). The most probable cause for this trend is the region-wide drought that occurred across much of New Hampshire through the summer and fall (Figure 3). Droughts reduce the amount of water carried by rivers and streams, which can then have an inverse effect on contaminants. When there is less water to dilute a contaminant, the concentration of that substance increases, despite containing the same base amount. In the case of Cold Brook, and much of the Ossipee Watershed, conductivity readings are likely being affected by the drought since there is less water in the environment to dilute the same amount of salt pollution.

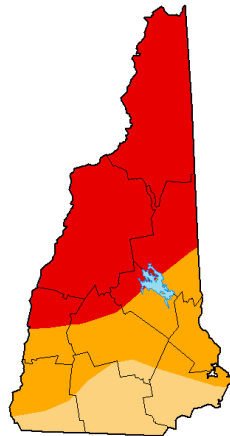
NH DES states that conductivity levels in freshwater bodies across the state are rising, in general, mostly due to road salting, faulty septic systems, and urban/agricultural runoff (NHDES, 2004). Conductivity levels at Cold Brook were elevated to 152 $\mu\text{S}/\text{cm}$ in 2025, the highest of all sites sampled in the past 20 years, with every other 2025 site reporting conductivity at a value higher than average (Figure 2). While it is true that the other causes listed previously can play a role in increasing the salt content of waterbodies, it is likely that any effect they might have had was any further exacerbated by this season’s drought.

Figure 2. Watershed conductivity data from the six VBAP sites sampled over the past 20 years. Trendlines show a steady increase in annual conductivity levels, with all sites in 2025 reporting higher than average results.



**U.S. Drought Monitor
New Hampshire**

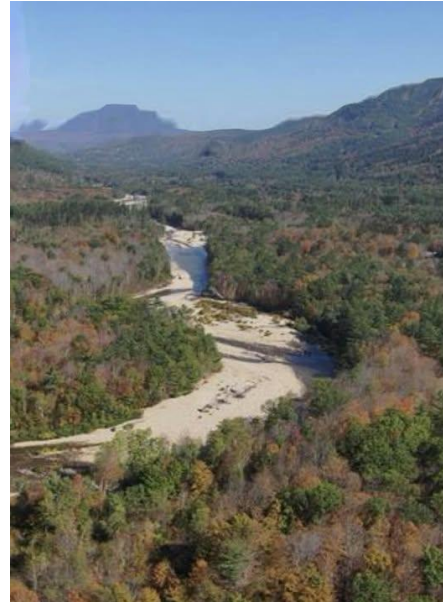
October 21, 2025
(Released Thursday, Oct. 23, 2025)
Valid 8 a.m. EDT



Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:
Richard Tinker
OPC/NOAA/NWS/NCEP



Figures 3 and 4: In 2025, much of the northeast experienced drought through the summer and fall. In New Hampshire, 2025 was the driest summer on record with all of the state officially in drought and the Saco River Watershed in extreme drought for this time period. The red area of the map (left) shows the area of extreme drought and the image (right) shows how low water levels were in the Saco River as it makes its way through Bartlett, NH in early October, 2025. (Map source: <https://droughtmonitor.unl.edu/CurrentMap.aspx>; Image credit: Jason Bagley)

New Hampshire’s freshwater lakes, streams and groundwater are becoming saltier each year. The leading cause is the 400,000 tons of road salt applied every winter to our Interstates, state highways, town roads and other surfaces. Salt is toxic to aquatic life and plants; it corrodes bridges and vehicles, and when it accumulates in drinking water it jeopardizes human health. To bring this issue of rising conductivity levels to the attention of Ossipee Watershed towns, GMCG has co-hosted workshops such as Green SnowPro with UNH T2 Center, NH DES, and NH Department of Transportation to train area road agents and plow drivers on efficient use and spreading of salt, helping educate those on the front lines about the importance of not over-salting our freshwater ecosystems.

Green Mountain Conservation Group also launched the Salt Responsibly campaign in January 2022 to inform New Hampshire residents about the harm caused by road salts and to provide guidance on ways to reduce the amount of salt that is contaminating New Hampshire’s waterways and water supply. The Salt Responsibly campaign is not about casting blame. We recognize that safety is the first priority of those responsible for winter road maintenance, and until the day that practical alternatives are widely available, road salt use will continue. What we seek is a broader public understanding of the problem and to inspire everyone to make changes that will reduce the amount of salt that is damaging our environment, threatening our health, and hurting our economy.

For more detailed water quality analyses on the water bodies in the Ossipee Watershed, please see the 15 Year Water Quality Report as recent as 2019, or annual town reports as recent

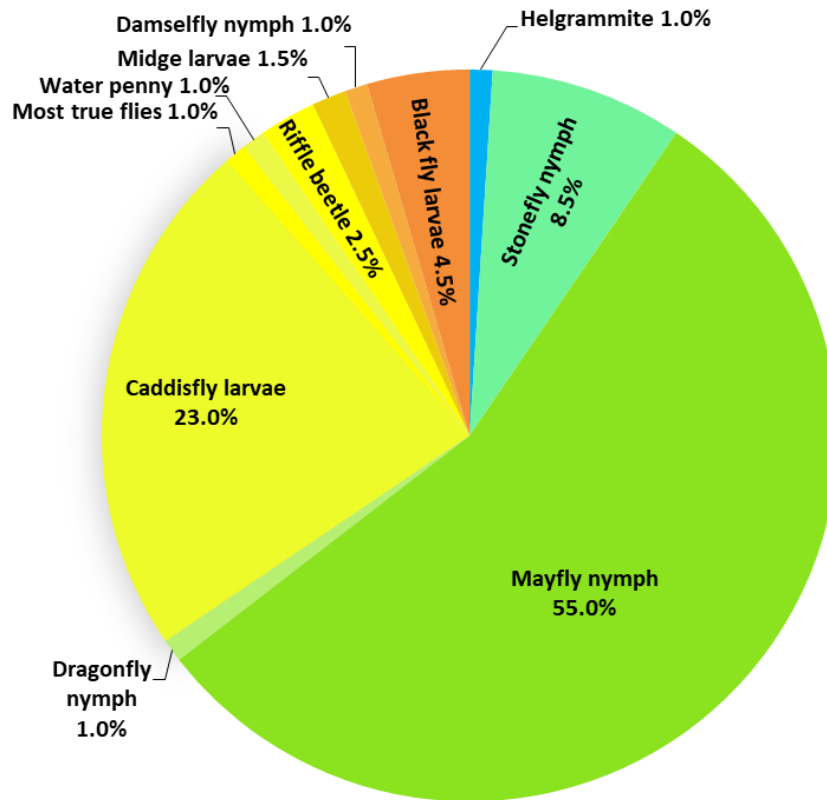
as 2024 at: <http://www.gmcg.org/research/water-quality-program-data/>. The SRCC's water quality report of data from 2001 through 2020, published in 2021, is also available: https://srcc-maine.org/wp-content/uploads/2022/01/SRCC_2020WQManalysis_FBE_FinalDraft.pdf.

Future Recommendations

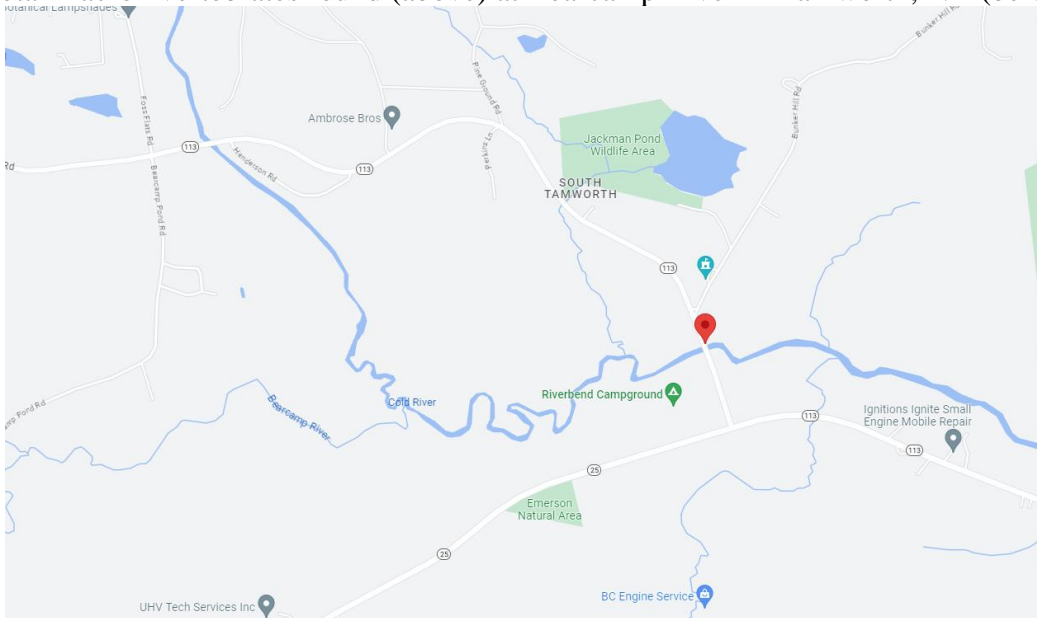
The documentation of the invertebrate communities by volunteers using the VBAP protocol during the fall of 2025 in the Ossipee Watershed marked the twentieth year of 'screening' efforts to evaluate the status of aquatic communities. Sampling efforts included six sites in the Saco Watershed. Macroinvertebrates are widely used as indicators of water quality that can show the effects of multiple pollutants over time. It is important to recognize that the results obtained from the VBAP protocol are not intended to represent formal water quality assessments, but rather a basic indicator of aquatic community conditions. Ultimately, the results from the VBAP for 2025 build upon the efforts conducted by GMCG, NHDES and NHFG to establish reference sites in the state, compare sites across the state, and provide watershed education to youth. The results of the program serve as a basis for further monitoring and management practices to be put into use throughout the watershed. Schools also use their VBAP data for the NH Fish and Game program: Trout in the Classroom; to make sure the water quality conditions and macroinvertebrates at their release sites are adequate to support Eastern brook trout. These data are in fact required by NH Fish and Game in order to issue schools permits for the program.

The Ossipee Watershed has a reputation for having great water quality overall and the VBAP results validate this statement. It is recommended that GMCG continue to work with schools in the Ossipee Watershed and neighboring communities to continue to monitor the water quality of the local streams and rivers. Biotic scores for sites sampled in 2025 ranged from good to excellent, and continued monitoring will be essential to track any water quality changes over time. The long-term health of surface waters will depend on preventing potential sources of contamination from entering water bodies and using best management practices that reduce or prevent adverse impacts from human activities, such as road salting. Sites where human activities appear to be impacting water quality should be monitored closely for potential sources of contamination, and road salting alternatives should be sought. In addition, continued monitoring for microplastics pollution is recommended as a means of educating students about the importance of reducing plastic use and the local impacts of this global problem.

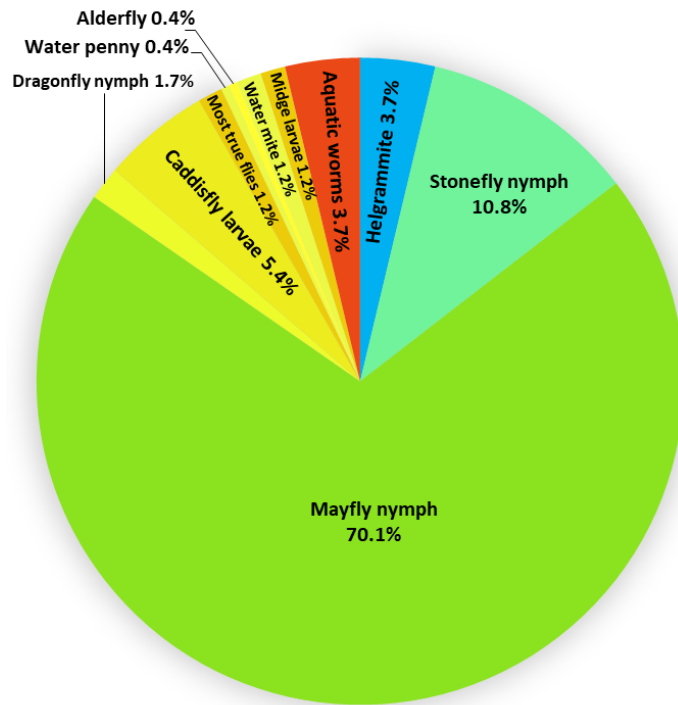
Appendix A: Macroinvertebrate Total Charts and Site Maps
Total Macroinvertebrates KA Brett School



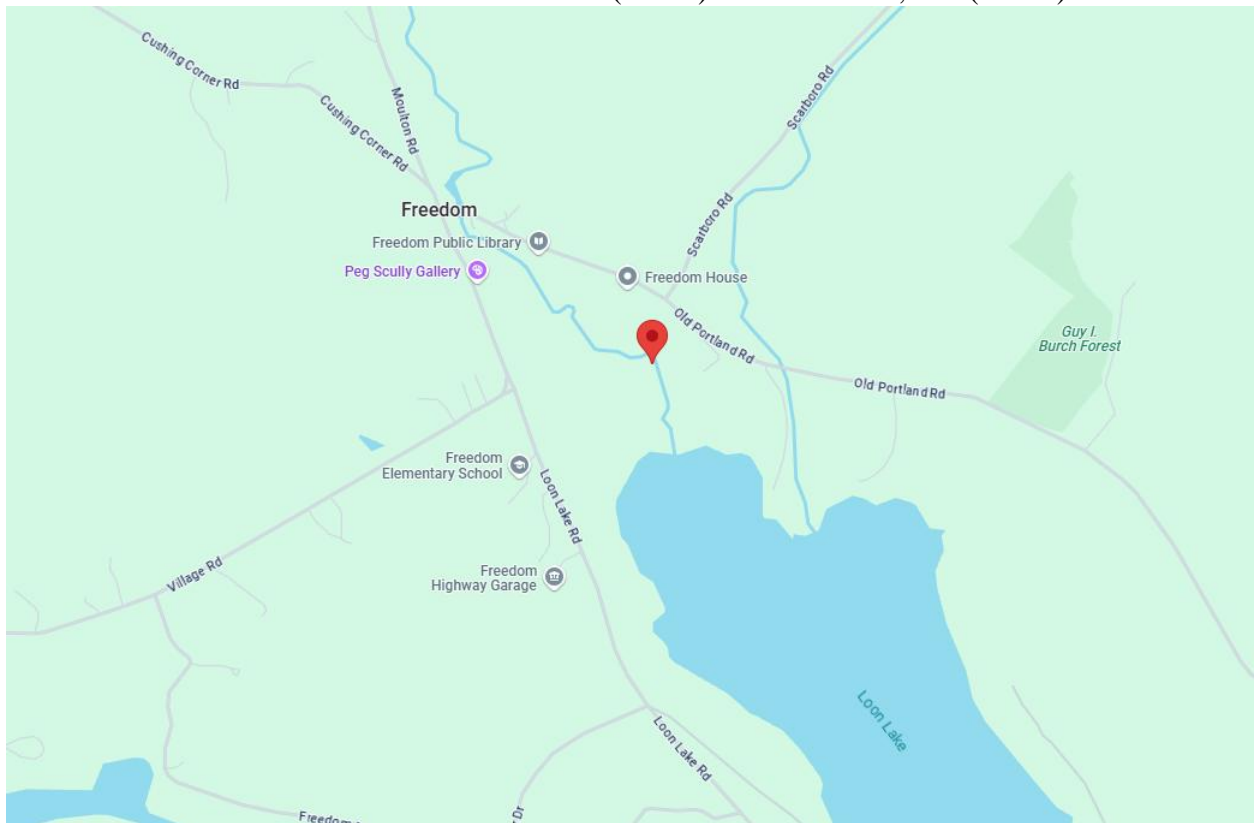
Total macroinvertebrates found (above) at Bearcamp River in Tamworth, NH (below)



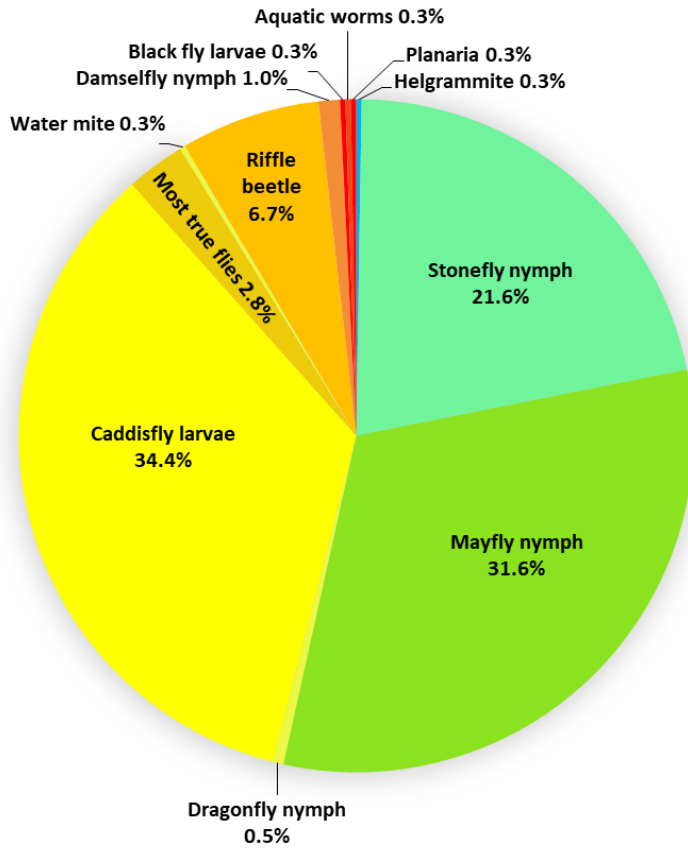
Total Macroinvertebrates Freedom Elementary



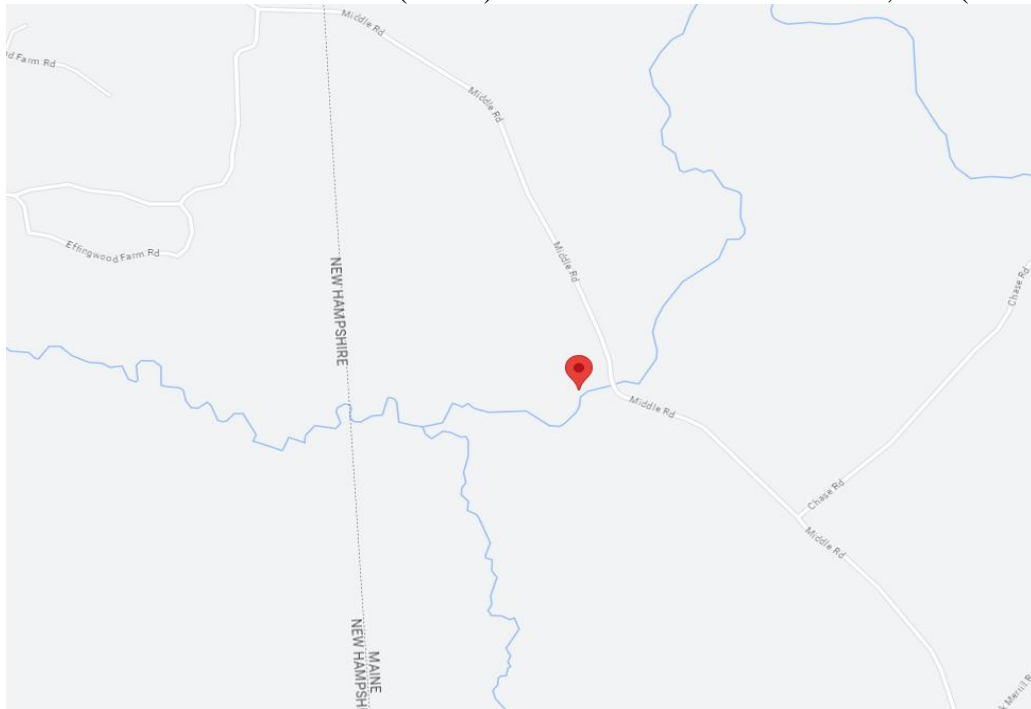
Total macroinvertebrates found (above) at Cold Brook, NH (below)



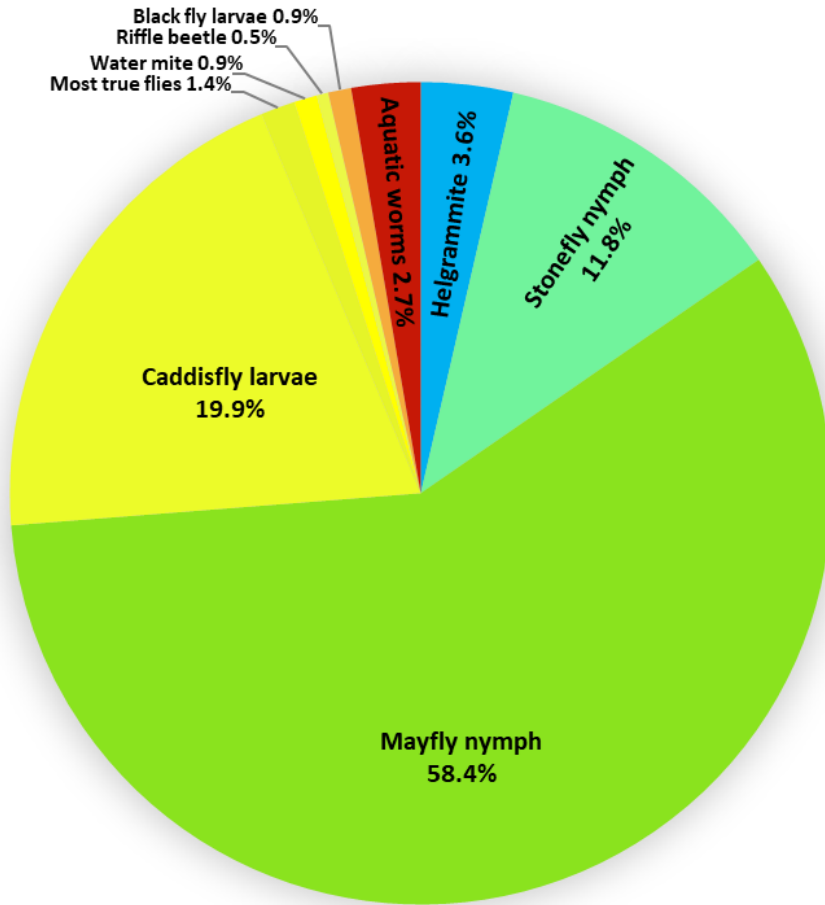
Total Macroinvertebrates Effingham Elementary



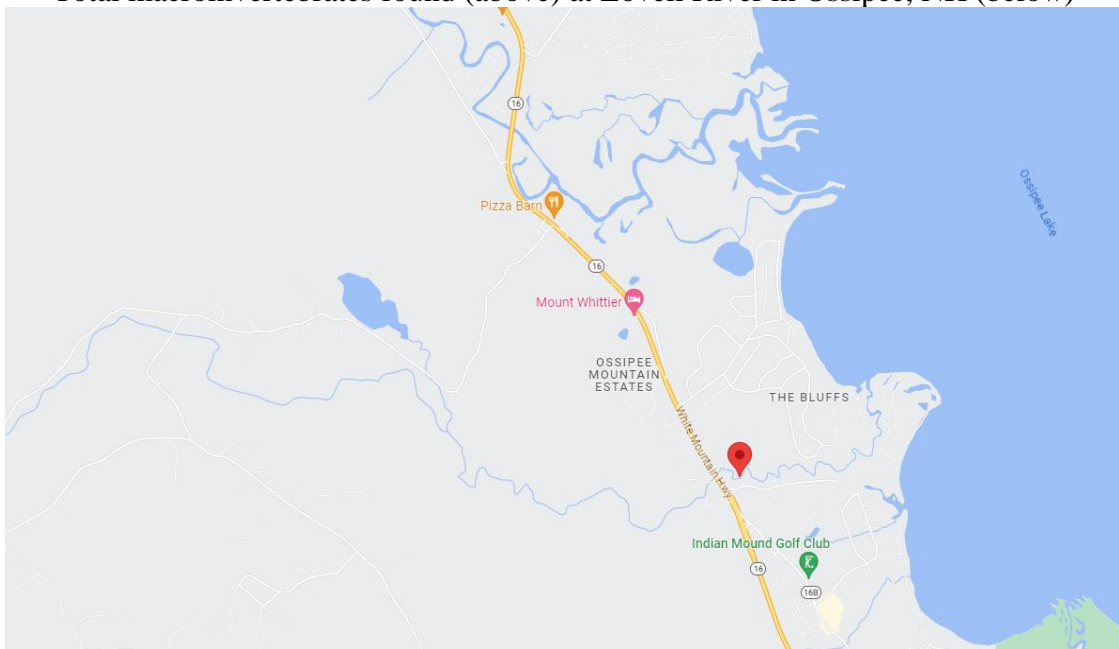
Total macroinvertebrates found (above) at South River in Parsonsfield, ME (below)



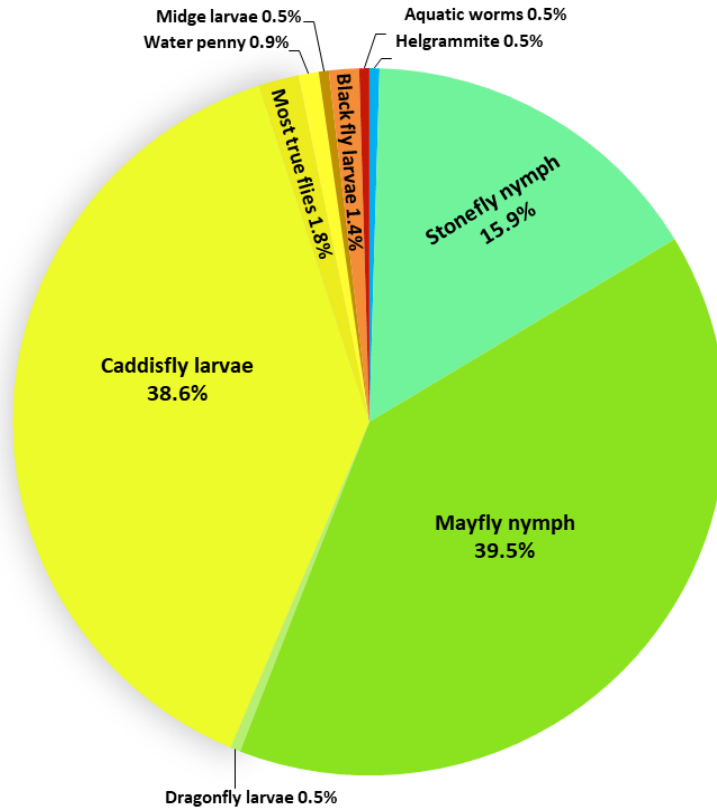
Total Macroinvertebrates Madison Elementary



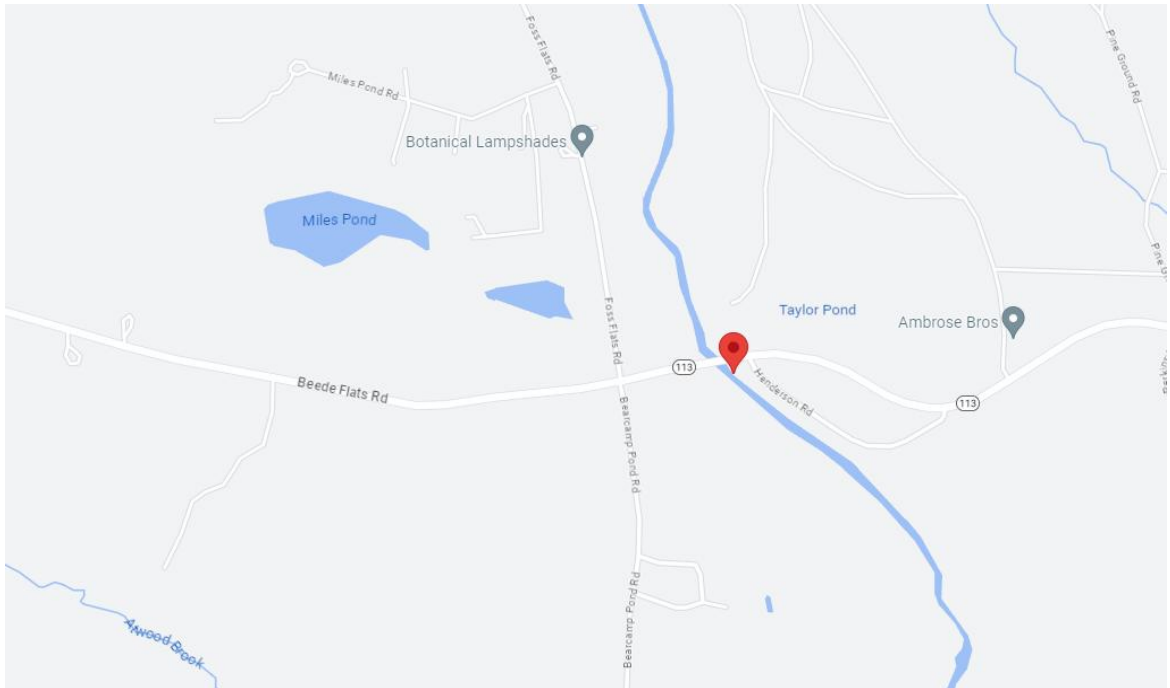
Total macroinvertebrates found (above) at Lovell River in Ossipee, NH (below)



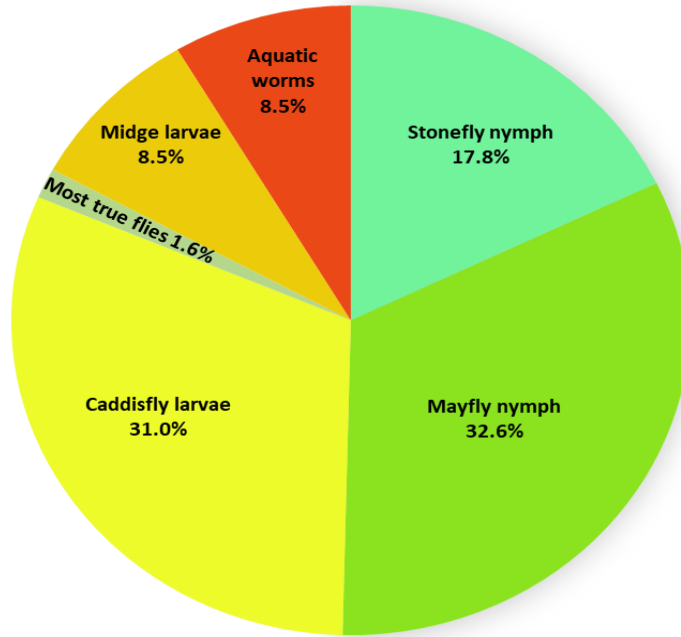
Total Macroinvertebrates Sandwich Central School



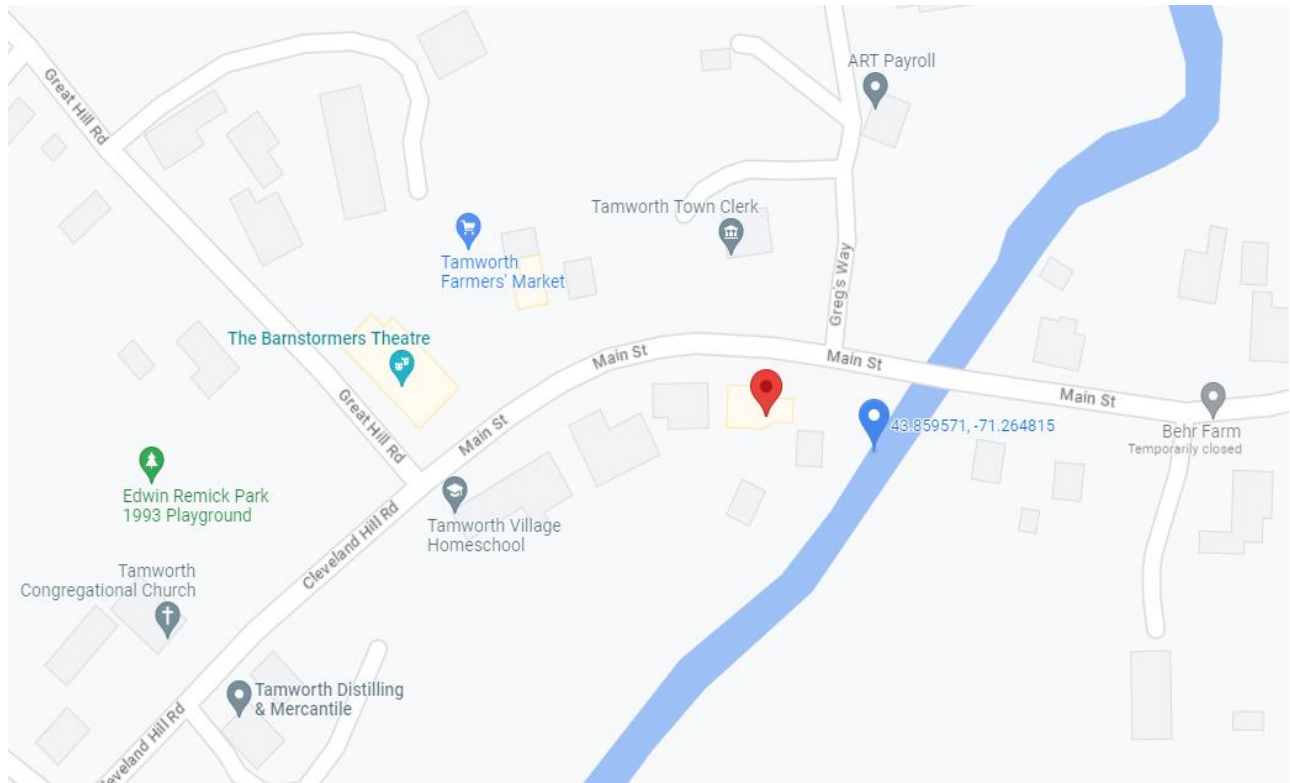
Total Macroinvertebrates found (above) at Cold River in Sandwich, NH (below)



Total Macroinvertebrates Ossipee Central School



Total macroinvertebrates found (above) at Swift River in Tamworth, NH (below)



Appendix B: Site Data Sheets

Bearcamp River - Tamworth, NH

Order	Common Name	Value	*	Found	=	Score	Final Score	Category
Ephemeroptera	Mayfly Nymph	3	*	110	=	330		
Plecoptera	Stonefly Nymph	1	*	17	=	17		
Trichoptera	Caddisfly Larvae	4	*	46	=	184		
Odonata	Dragonfly Nymph	3	*	2	=	6		
	Damselfly Nymph	7	*	2	=	14		
Diptera	Black fly larvae	7	*	9	=	63		
	Midge larvae	6	*	3	=	18		
	Most True flies	4	*	2	=	8		
Megaloptera	Alderfly	4	*	0	=	0		
	Hellgrammite	0	*	2	=	0		
Coleoptera	Riffle beetle	4	*	5	=	20		
	Water Penny	4	*	2	=	8		
	Beetle & Beetle-like	7	*	0	=	0		
Others	Crayfish	6	*	0	=	0		
	Snails	7	*	0	=	0		
	Aquatic Worms	8	*	0	=	0		
	Scuds	8	*	0	=	0		
	Sowbugs	7	*	0	=	0		
	Clams and Mussels	7	*	0	=	0		
	Water Mites	4	*	0	=	0		
Planeria	8	*	0	=	0			
Totals				200		668	3.34	Excellent

Cold Brook - Freedom, NH

Order	Common Name	Value	*	Found	=	Score	Score	Category
Ephemeroptera	Mayfly Nymph	3	*	169	=	507		
Plecoptera	Stonefly Nymph	1	*	26	=	26		
Trichoptera	Caddisfly Larvae	4	*	13	=	52		
Odonata	Dragonfly Nymph	3	*	4	=	12		
	Damselfly Nymph	7	*	0	=	0		
Diptera	Black fly larvae	7	*	0	=	0		
	Midge larvae	6	*	3	=	18		
	Most True flies	4	*	3	=	12		
Megaloptera	Alderfly	4	*	1	=	4		
	Hellgrammite	0	*	9	=	0		
Coleoptera	Riffle beetle	4	*	0	=	0		
	Water Penny	4	*	1	=	4		
	Beetle & Beetle-like	7	*	0	=	0		
Others	Crayfish	6	*	0	=	0		
	Snails	7	*	0	=	0		
	Aquatic Worms	8	*	9	=	72		
	Scuds	8	*	0	=	0		
	Sowbugs	7	*	0	=	0		
	Clams and Mussels	7	*	0	=	0		
	Water Mites	4	*	3	=	12		
Planeria	8	*	0	=	0			
Totals				241		719	2.98	Excellent

South River - Parsonsfield, ME

Order	Common Name	Value	*	Found	=	Score	Score	Category
Ephemeroptera	Mayfly Nymph	3	*	123	=	369		
Plecoptera	Stonefly Nymph	1	*	84	=	84		
Trichoptera	Caddisfly Larvae	4	*	134	=	536		
Odonata	Dragonfly Nymph	3	*	2	=	6		
	Damselfly Nymph	7	*	4	=	28		
Diptera	Black fly larvae	7	*	1	=	7		
	Midge larvae	6	*	0	=	0		
	Most True flies	4	*	11	=	44		
Megaloptera	Alderfly	4	*	0	=	0		
	Hellgrammite	0	*	1	=	0		
Coleoptera	Riffle beetle	4	*	26	=	104		
	Water Penny	4	*	0	=	0		
	Beetle & Beetle-like	7	*	0	=	0		
Others	Crayfish	6	*	0	=	0		
	Snails	7	*	0	=	0		
	Aquatic Worms	8	*	1	=	8		
	Scuds	8	*	0	=	0		
	Sowbugs	7	*	0	=	0		
	Clams and Mussels	7	*	0	=	0		
	Water Mites	4	*	1	=	4		
	Planeria	8	*	1	=	8		
Totals				389		1198	3.08	Excellent

Lovell River - Ossipee. NH

Order	Common Name	Value	*	Found	=	Score	Score	Category
Ephemeroptera	Mayfly Nymph	3	*	129	=	387		
Plecoptera	Stonefly Nymph	1	*	26	=	26		
Trichoptera	Caddisfly Larvae	4	*	44	=	176		
Odonata	Dragonfly Nymph	3	*	0	=	0		
	Damselfly Nymph	7	*	0	=	0		
Diptera	Black fly larvae	7	*	2	=	14		
	Midge larvae	6	*	1	=	6		
	Most True flies	4	*	3	=	12		
Megaloptera	Alderfly	4	*	0	=	0		
	Hellgrammite	0	*	8	=	0		
Coleoptera	Riffle beetle	4	*	1	=	4		
	Water Penny	4	*	0	=	0		
	Beetle & Beetle-like	7	*	0	=	0		
Others	Crayfish	6	*	0	=	0		
	Snails	7	*	0	=	0		
	Aquatic Worms	8	*	6	=	48		
	Scuds	8	*	0	=	0		
	Sowbugs	7	*	0	=	0		
	Clams and Mussels	7	*	0	=	0		
	Water Mites	4	*	2	=	8		
	Planeria	8	*	0	=	0		
Totals				222		681	3.07	Excellent

Cold River - Sandwich, NH

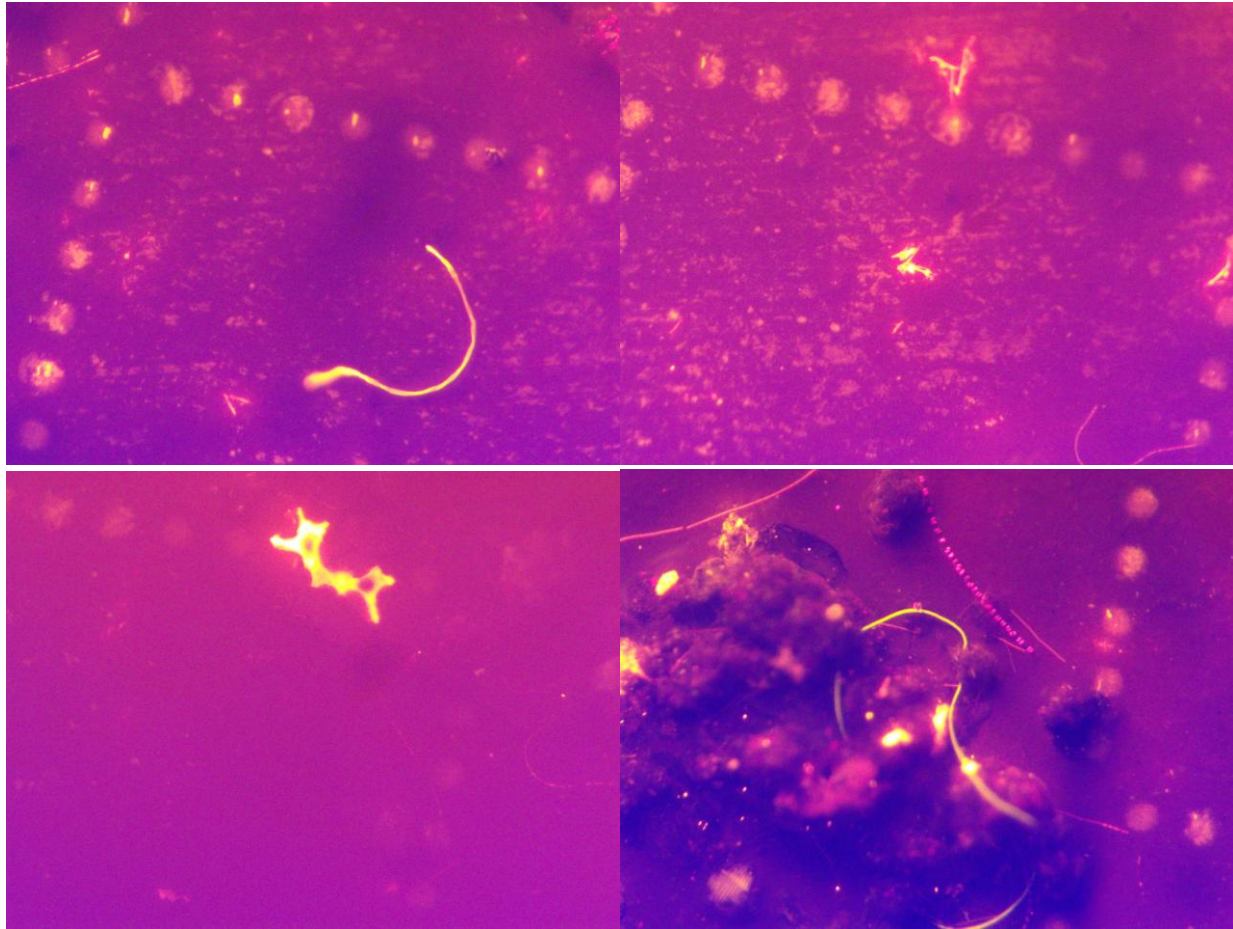
Order	Common Name	Value	*	Found	=	Score	Score	Category
Ephemeroptera	Mayfly Nymph	3	*	87	=	261		
Plecoptera	Stonefly Nymph	1	*	35	=	35		
Trichoptera	Caddisfly Larvae	4	*	85	=	340		
Odonata	Dragonfly Nymph	3	*	1	=	3		
	Damselfly Nymph	7	*	0	=	0		
Diptera	Black fly larvae	7	*	3	=	21		
	Midge larvae	6	*	1	=	6		
	Most True flies	4	*	4	=	16		
Megaloptera	Alderfly	4	*	0	=	0		
	Hellgrammite	0	*	1	=	0		
Coleoptera	Riffle beetle	4	*	0	=	0		
	Water Penny	4	*	2	=	8		
	Beetle & Beetle-like	7	*	0	=	0		
Others	Crayfish	6	*	0	=	0		
	Snails	7	*	0	=	0		
	Aquatic Worms	8	*	1	=	8		
	Scuds	8	*	0	=	0		
	Sowbugs	7	*	0	=	0		
	Clams and Mussels	7	*	0	=	0		
	Water Mites	4	*	0	=	0		
	Planeria	8	*	0	=	0		
Totals				220		698	3.17	Excellent

Swift River - Tamworth, NH

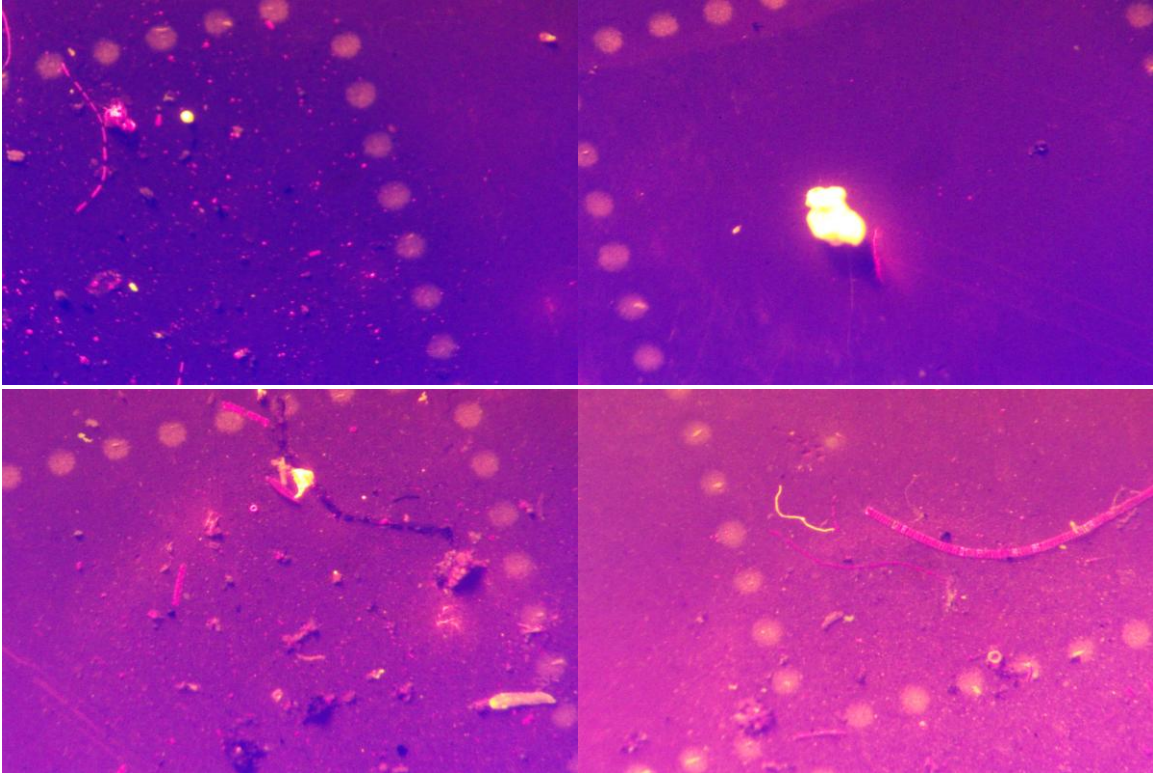
Order	Common Name	Value	*	Found	=	Score	Score	Category
Ephemeroptera	Mayfly Nymph	3	*	42	=	126		
Plecoptera	Stonefly Nymph	1	*	23	=	23		
Trichoptera	Caddisfly Larvae	4	*	40	=	160		
Odonata	Dragonfly Nymph	3	*	0	=	0		
	Damselfly Nymph	7	*	0	=	0		
Diptera	Black fly larvae	7	*	0	=	0		
	Midge larvae	6	*	11	=	66		
	Most True flies	4	*	2	=	8		
Megaloptera	Alderfly	4	*	0	=	0		
	Hellgrammite	0	*	0	=	0		
Coleoptera	Riffle beetle	4	*	0	=	0		
	Water Penny	4	*	0	=	0		
	Beetle & Beetle-like	7	*	0	=	0		
Others	Crayfish	6	*	0	=	0		
	Snails	7	*	0	=	0		
	Aquatic Worms	8	*	11	=	88		
	Scuds	8	*	0	=	0		
	Sowbugs	7	*	0	=	0		
	Clams and Mussels	7	*	0	=	0		
	Water Mites	4	*	0	=	0		
	Planeria	8	*	0	=	0		
Totals				129		471	3.65	Good

Appendix C: Microplastics Photos

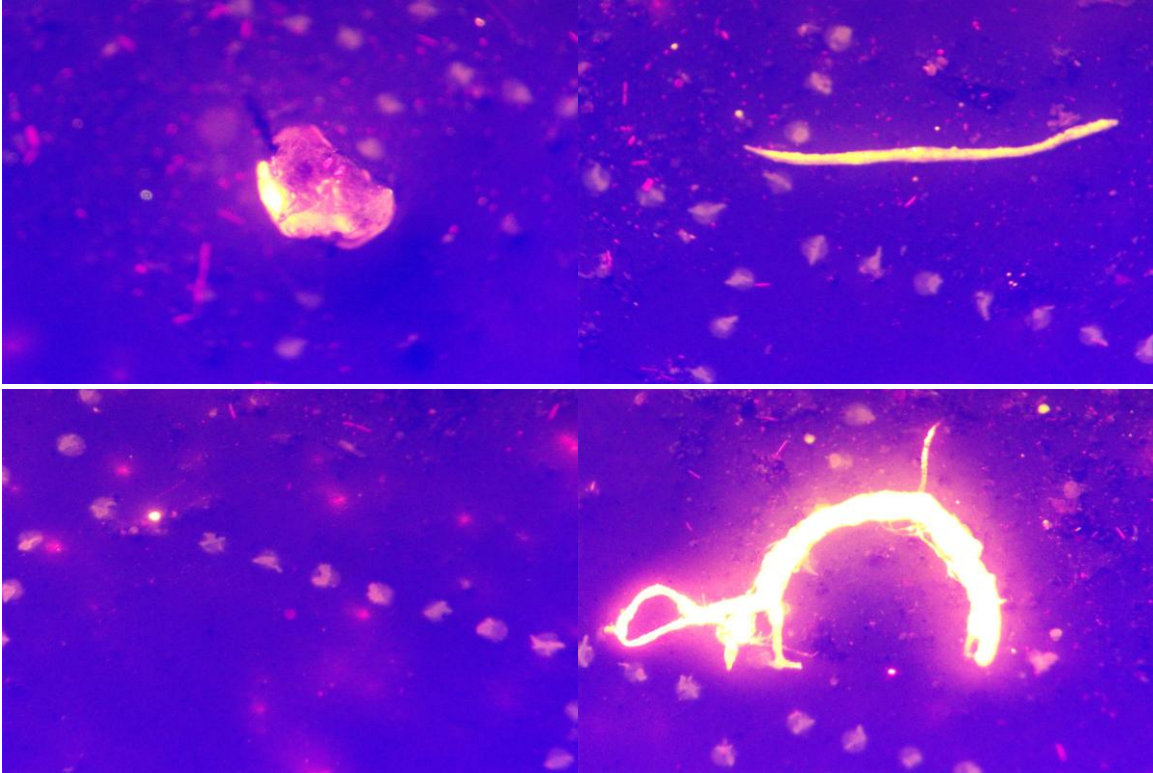
Bearcamp River - Tamworth, NH



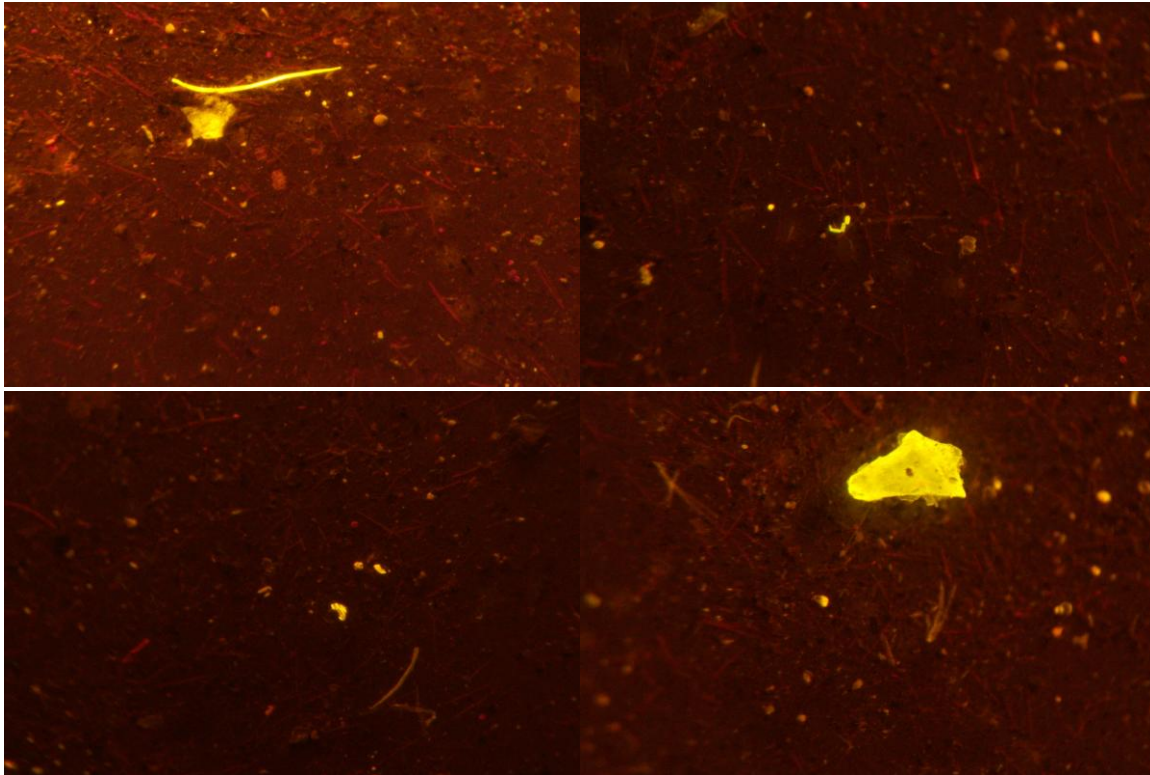
Cold Brook - Freedom, NH



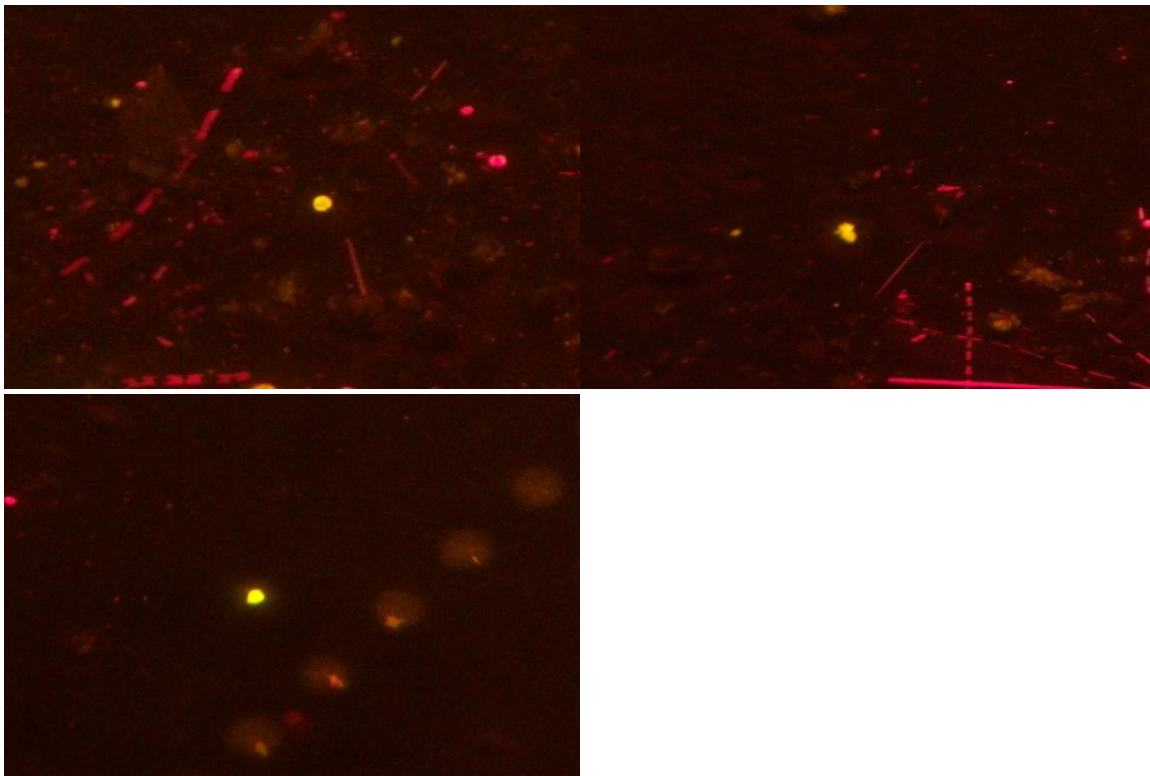
South River - Parsonsfield, ME



Lovell River - Ossipee, NH



Cold River - Sandwich, NH



Appendix D: Works Cited

- FB Environmental & Saco River Corridor Commission (2021, December). *Saco River Corridor Commission 2020 Water Quality Analysis*. https://srcc-maine.org/wp-content/uploads/2022/01/SRCC_2020WQManalysis_FBE_FinalDraft.pdf
- New Hampshire Department of Environmental Services (2004). *Special Topics Article: Conductivity is on the rise in New Hampshire's lakes and ponds: What is causing the increase and what can be done?* https://www.des.nh.gov/organization/commissioner/pip/publications/wd/documents/2004_special_topic_conductivity.pdf