



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Information

Station Number: S-486	River Basin: Kennebec
Waterbody: East Branch Wesserunsett Stream - Station 486	HUC8 Name: Lower Kennebec
Town: Athens	Latitude: 44 57 24.29 N
Directions: (WES1) ABOVE RTE 150 NEAR REST AREA	Longitude: 69 38 39.25 W
	Stream Order: 3

Sample Information

Log Number: 2481	Type of Sample: ROCK BAG	Date Deployed: 7/14/2016
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/11/2016

Classification Attainment

Statutory Class: B	Final Determination: A	Date: 1/30/2017
Model Result with $P \geq 0.6$: A	Reason for Determination: Model	
Date Last Calculated: 1/27/2017	Comments:	

Model Probabilities

<u>First Stage Model</u>			<u>C or Better Model</u>		
Class A	0.76	Class C	0.02	Class A, B, or C	1.00
Class B	0.21	NA	0.00	Non-Attainment	0.00
<u>B or Better Model</u>			<u>A Model</u>		
Class A or B		1.00	Class A	0.98	
Class C or Non-Attainment		0.00	Class B or C or Non-Attainment	0.02	

Model Variables

01 Total Mean Abundance	56.33	18 Relative Abundance Ephemeroptera	0.33
02 Generic Richness	24.00	19 EPT Generic Richness	11.00
03 Plecoptera Mean Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.00
04 Ephemeroptera Mean Abundance	18.67	23 Relative Generic Richness- Plecoptera	0.04
05 Shannon-Wiener Generic Diversity	3.56	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	0.67
06 Hilsenhoff Biotic Index	3.64	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	8.67
07 Relative Abundance - Chironomidae	0.12	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.17	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	0.33		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	2.75		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.67		
16 Tanypodinae Mean Abundance (Family Functional Group)	0.67		
17 Chironomini Abundance (Family Functional Group)	4.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Helicopsyche</i>	24.85
2	<i>Maccaffertium</i>	15.38
3	<i>Acerpenna</i>	12.43
4	<i>Brachycentrus</i>	8.88
5	<i>Promoresia</i>	7.69



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Number: S-486 Town: Athens Date Deployed: 7/14/2016
Log Number: 2481 Waterbody: East Branch Wesserunsett Stream - Station 486 Date Retrieved: 8/11/2016

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT Taxonomist: ECOANALYSTS IDAHO

Waterbody Information - Deployment

Temperature: 23.6 deg C
Dissolved Oxygen: 9.75 mg/l
Dissolved Oxygen Saturation: 117.1 %
Specific Conductance: 88.4 uS/cm
Velocity: 18.3 cm/s
pH: 8.27
Wetted Width: 10 m
Bankfull Width: 15 m
Depth: 39 cm

Waterbody Information - Retrieval

Temperature: 24.3 deg C
Dissolved Oxygen: 10.35 mg/l
Dissolved Oxygen Saturation: 125.7 %
Specific Conductance: 118.1 uS/cm
Velocity: 3.048 cm/s
pH: 8.5
Wetted Width: 7.8 m
Bankfull Width: 15 m
Depth: 32 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Upland Conifer	Partly Open	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
Agricultural Runoff	Above Road Crossing	Bedrock	15 %
Logging		Boulder	70 %
		Gravel	5 %
		Rubble/Cobble	10 %

Landcover Summary - 2004 Data

Total Area (ac)	11673	High Int. Dev. %	0.0	Water %	1.4	Non-vegetated %	0.0
		Med Int. Dev. %	0.1	Wetland %	2.1	Tilled Agriculture %	1.2
		Low Int. Dev. %	3.0	Upland Woody %	91.7	Grassland %	0.6
		Development %	3.0	Natural %	93.8	Human Altered %	4.8
						Impervious %	0.9

Sample Comments



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-486

Waterbody: East Branch Wesserunsett Stream - Station 4 Town: Athens

Log Number: 2481

Subsample Factor: X1

Replicates: 3

Calculated: 1/27/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
Nematomorpha	06	0.33	0.33		--	0.6	0.6
<i>Agnatina</i>	09020209050		0.67	2	PR		1.2
<i>Agnatina capitata</i>	09020209050152	0.67		2	PR	1.2	
<i>Boyeria</i>	09020301004		1.00	2	PR		1.8
<i>Boyeria grafiana</i>	09020301004011	1.00			--	1.8	
Gomphidae	09020302	0.33	0.33		--	0.6	0.6
<i>Baetis</i>	09020401001		1.33	4	CG		2.4
<i>Baetis intercalaris</i>	09020401001008	1.33			--	2.4	
<i>Acerpenna</i>	09020401007		7.00	5	CG		12.4
<i>Acerpenna pygmaea</i>	09020401007011	7.00			--	12.4	
<i>Dipheter</i>	09020401013		0.67		--		1.2
<i>Dipheter hageni</i>	09020401013001	0.67			--	1.2	
<i>Maccaffertium</i>	09020402015		8.67	4	SC		15.4
<i>Maccaffertium vicarium</i>	09020402015055	8.67			--	15.4	
Leptophlebiidae	09020406	0.33	0.33		--	0.6	0.6
<i>Serratella</i>	09020410037		0.67	2	CG		1.2
<i>Serratella serratoides</i>	09020410037124	0.67			--	1.2	
<i>Hydropsyche</i>	09020604016		0.33	4	CF		0.6
<i>Hydropsyche sparna</i>	09020604016032	0.33			--	0.6	
Brachycentridae	09020609				--		
<i>Brachycentrus</i>	09020609043		5.00	0	CF		8.9
<i>Brachycentrus appalachia</i>	09020609043096	5.00			--	8.9	
<i>Helicopsyche</i>	09020616070		14.00	3	SC		24.9
<i>Helicopsyche borealis</i>	09020616070137	14.00			--	24.9	
<i>Mystacides</i>	09020618075		0.33	4	CG		0.6
<i>Mystacides sepulchralis</i>	09020618075147	0.33			--	0.6	
Chironomidae	09021011				--		
<i>Ablabesmyia</i>	09021011001		0.67	8	PR		1.2
<i>Ablabesmyia mallochii</i>	09021011001004	0.67			--	1.2	
<i>Orthocladius</i>	09021011050	1.67	1.67	6	CG	3.0	3.0
<i>Lauterborniella</i>	09021011092		0.33		CG		0.6
<i>Lauterborniella agrayloides</i>	09021011092001	0.33			--	0.6	
<i>Polypedilum</i>	09021011102		4.00	6	SH		7.1
<i>Polypedilum aviceps</i>	09021011102181	4.00			--	7.1	
<i>Psephenus</i>	09021108058		2.67	4	SC		4.7
<i>Psephenus herricki</i>	09021108058028	2.67			--	4.7	
<i>Macronychus</i>	09021113065		0.67	4	--		1.2



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Taxonomic Inventory Report**

Station Number: S-486

Waterbody: East Branch Wesserunsett Stream - Station 4 Town: Athens

Log Number: 2481

Subsample Factor: X1

Replicates: 3

Calculated: 1/27/2017

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Macronychus glabratus</i>	09021113065040	0.67			--	1.2	
<i>Promoresia</i>	09021113069		4.33		--		7.7
<i>Promoresia elegans</i>	09021113069051	3.33			--	5.9	
<i>Promoresia tardella</i>	09021113069052	1.00			--	1.8	
Acariformes	090301	0.33	0.33		--	0.6	0.6
Hydryphantidae	09030114	0.33	0.33		--	0.6	0.6
<i>Aplexa</i>	10010202028		0.33		--		0.6
<i>Aplexa elongata</i>	10010202028053	0.33				0.6	
Ancyliidae	10010204	0.33	0.33		SC	0.6	0.6