

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

**Station Information**

<b>Station Number:</b> S24	DEP Drainage: Kennebec
Waterbody: Kennebec River	HUC Code: 01030003
Town: FAIRFIELD	HUC Name: Lower Kennebec
Directions: 9.7 km below S.D. Warren discharge; 0.3 km above Shawmut dam	Latitude: 44 Deg 37 Min 52 Sec
	Longitude: 69 Deg 35 Min 4 Sec
	Stream Order: 6

**Sample Information**

<b>Log Number:</b> 1408	Type of Sample: Cones	Date Deployed: 20-JUL-04
Subsample Factor: X1	Replicates: 3	Date Retrieved: 13-SEP-04

**Classification Attainment**

Statutory Class: C	<b>Final Determination:</b> C	
Model Result with P > .6: C	Reason for Determination: Model	
Date Last Calculated:		

**Model Probabilities**

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.08	Class A, B, or C	1.00
Class B	0.33	Non-Attainment	0.00
		Class C	0.58
		Class NA	0.01
<u>B or Better Model</u>		<u>A Model</u>	
Class A or B	0.15	Class A	0.02
Class C or Non-Attainment	0.85	Class B or C or Non-Attainment	0.98

**Model Variables**

01 Total Abundance of Individuals	84.33	18 Relative Abundance - Ephemeroptera	0.31
02 Generic Richness	39.00	19 EPT Generic Richness	16.00
03 Plecoptera Abundance	0.67	21 Sum of Abundances: <i>Dicrotendipes</i> ,	3.42
04 Ephemeroptera Abundance	26.33	<i>Micropsectra, Parachironomus, Helobdella</i>	
05 Shannon - Wiener Diversity	4.05	23 Relative Generic Richness- Plecoptera	0.03
06 Hilsenhoff Biotic Index	6.57	25 Sum of Abundances: <i>Cheumatopsyche</i> ,	3.06
07 Relative Abundance - Chironomidae	0.11	<i>Cricotopus, Tanytarsus, Ablabesmyia</i>	
08 Relative Generic Richness - Diptera	0.26	26 Sum of Abundances: <i>Acroneuria, Stenonema</i>	4.32
09 <i>Hydropsyche</i> Abundance	0.33	28 EP Generic Richness/14	0.50
11 <i>Cheumatopsyche</i> Abundance	1.33	30 Presence of Class A Indicator Taxa/7	0.00
12 EPT Generic Richness/ Diptera Generic Richness	1.60		

**Five Most Dominant Taxa**

		Taxa Rank	Taxa Name	Percent
13 Relative Abundance - Oligochaeta	0.01	1	Stenacron	22.94
15 Perlidae Abundance (Family Functional Group)	0.67	2	Amnicola	16.60
16 Tanypodinae Abundance (Family Functional Group)	0.35	3	Caecidotea	9.88
17 Chironomini Abundance (Family Functional Group)	6.23	4	Dugesia	9.09
		5	Crangonyx	5.54

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

---

Station Number S24      Town:      FAIRFIELD      Date Deployed: 20-JUL-04  
Log Number:      1408      Waterbody: Kennebec River      Date Retrieved: 13-SEP-04

---

**Sample Collection and Processing Information**

---

Sampling Organization:  
Taxonomist:      Michael Winnell

---

**Waterbody Information**

---

Water Temperature: 22.6 °C	Specific Conductance	Channel Width: 580.0 m
Velocity:	Dissolved Oxygen: 6.9 ppm	Channel Depth: 600.0 cm

---

**Summary of Habitat Characteristics**

---

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Stressor</u>	<u>Location</u>
Upland Hardwood	Partly Open		Not Designated

---

**Substrate**

---

**Comments about the Station or Sample**

---

9/13/04Data:  
Depth: 600cm; Temp: 19.3; SPC: 42uS/cm; DO: 8.6 7/20/04:depth DO: 6.9 Depth temp: 21

---

**Comments about the Final Determination**

---

**Maine Department of Environmental Protection  
Biological Monitoring Unit**

**Station Number:** S24

**Waterbody:** Kennebec River

**Town:** FAIRFIELD

**Log Number:** 1408

**Subsample:** X1

**Replicates:** 3

**Calculated:**

**BioME Aquatic Life Taxonomic Inventory Report**

Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydra</i>	02010101001	1.00	1.00		PR	1.2	1.2
<i>Dugesia</i>	03010101002	0.00	7.67		--	0.0	9.1
<i>Dugesia tigrina</i>	03010101002003	7.67	0.00		--	9.1	0.0
<i>Prostoma</i>	04010101001	0.33	0.33		--	0.4	0.4
<i>Nematoda</i>	05	0.33	0.33		--	0.4	0.4
<i>Ripistes</i>	08020202011	0.00	0.67		--	0.0	0.8
<i>Ripistes parasita</i>	08020202011001	0.67	0.00		--	0.8	0.0
<i>Helobdella</i>	08030101005	0.00	1.00		--	0.0	1.2
<i>Helobdella stagnalis</i>	08030101005004	1.00	0.00		--	1.2	0.0
<i>Caecidotea</i>	09010101001	3.67	8.33	8	SH	4.4	9.9
<i>Caecidotea racovitzai</i>	09010101001002	4.67	0.00		--	5.5	0.0
<i>Crangonyx</i>	09010202004	0.00	4.67	8	--	0.0	5.5
<i>Crangonyx pseudogracilis</i>	09010202004007	4.67	0.00		--	5.5	0.0
<i>Orconectes</i>	09010301008	0.00	0.33		CG	0.0	0.4
<i>Orconectes limosus</i>	09010301008013	0.33	0.00		--	0.4	0.0
<i>Acroneuria</i>	09020209042	0.00	0.67	0	PR	0.0	0.8
<i>Acroneuria lycorias</i>	09020209042125	0.67	0.00		--	0.8	0.0
<i>Helocordulia</i>	09020305025	0.00	0.67		PR	0.0	0.8
<i>Helocordulia selysii</i>	09020305025051	0.67	0.00		--	0.8	0.0
<i>Coenagrionidae</i>	09020309	0.33	0.00		--	0.4	0.0
<i>Argia</i>	09020309048	0.33	0.50	7	PR	0.4	0.6
<i>Enallagma</i>	09020309051	0.33	0.50	9	PR	0.4	0.6
<i>Baetis</i>	09020401001	0.00	0.33	4	CG	0.0	0.4
<i>Baetis intercalaris</i>	09020401001008	0.33	0.00		--	0.4	0.0
<i>Heptageniidae</i>	09020402	2.00	0.00		--	2.4	0.0
<i>Stenacron</i>	09020402014	0.00	19.35	7	SC	0.0	22.9
<i>Stenacron interpunctatum</i>	09020402014045	17.67	0.00		--	21.0	0.0
<i>Stenonema</i>	09020402015	3.33	3.65	4	SC	3.9	4.3
<i>Leptophlebiidae</i>	09020406	1.33	1.33		--	1.6	1.6
<i>Tricorythodes</i>	09020411038	1.00	1.00	4	CG	1.2	1.2
<i>Caenis</i>	09020412040	0.67	0.67	7	CG	0.8	0.8
<i>Cernotina</i>	09020603006	0.33	0.33		PR	0.4	0.4
<i>Neureclipsis</i>	09020603008	1.00	1.00	7	CF	1.2	1.2
<i>Polycentropus</i>	09020603010	1.00	1.00	6	PR	1.2	1.2
<i>Cheumatopsyche</i>	09020604015	1.33	1.33	5	CF	1.6	1.6
<i>Hydropsyche</i>	09020604016	0.33	0.33	4	CF	0.4	0.4

**Maine Department of Environmental Protection  
Biological Monitoring Unit**

Station Number: S24

Waterbody: Kennebec River

Town: FAIRFIELD

Log Number: 1408

Subsample: X1

Replicates: 3

Calculated:

**BioME Aquatic Life Taxonomic Inventory Report**

Taxa	Code	Count (Average of Baskets)		Biotic Index Value	Functional Feeding Group	Relative Abundance	
		Actual	Adjusted			Actual	Adjusted
<i>Hydroptilidae</i>	09020607	0.33	0.33		--	0.4	0.4
<i>Lepidostoma</i>	09020611064	1.67	1.67	1	SH	2.0	2.0
<i>Leptoceridae</i>	09020618	0.33	0.33		--	0.4	0.4
<i>Oecetis</i>	09020618078	0.00	1.67	8	PR	0.0	2.0
<i>Oecetis inconspicua-complex</i>	09020618078156	1.67	0.00		--	2.0	0.0
<i>Chironomidae</i>	09021011	0.33	0.00		--	0.4	0.0
<i>Ablabesmyia</i>	09021011001	0.33	0.35	8	PR	0.4	0.4
<i>Micropsectra</i>	09021011070	0.33	0.35	7	CG	0.4	0.4
<i>Rheotanytarsus</i>	09021011072	0.67	0.69	6	CF	0.8	0.8
<i>Tanytarsus</i>	09021011076	1.00	1.38	6	CF	1.2	1.6
<i>Tanytarsus glabrescens</i>	09021011076134	0.33	0.00		--	0.4	0.0
<i>Dicrotendipes</i>	09021011085	1.33	1.38	8	CG	1.6	1.6
<i>Endochironomus</i>	09021011087	0.00	0.35	10	SH	0.0	0.4
<i>Endochironomus subtendens</i>	09021011087157	0.33	0.00		--	0.4	0.0
<i>Microtendipes</i>	09021011094	0.33	1.73	6	CF	0.4	2.1
<i>Microtendipes pedellus-grp.</i>	09021011094166	0.67	0.00		--	0.8	0.0
<i>Microtendipes rydalensis-grp.</i>	09021011094168	0.67	0.00		--	0.8	0.0
<i>Parachironomus</i>	09021011097	0.33	0.69	10	PR	0.4	0.8
<i>Parachironomus tenuicaudatus-complex</i>	09021011097179	0.33	0.00		--	0.4	0.0
<i>Polypedilum</i>	09021011102	0.00	1.38	6	SH	0.0	1.6
<i>Polypedilum illinoense-grp.</i>	09021011102185	1.33	0.00		--	1.6	0.0
<i>Xenochironomus</i>	09021011108	0.00	0.69	0	PR	0.0	0.8
<i>Xenochironomus xenolabis</i>	09021011108200	0.67	0.00		--	0.8	0.0
<i>Gastropoda</i>	1001	0.33	0.33		--	0.4	0.4
<i>Amnicola</i>	10010104013	0.67	14.00		SC	0.8	16.6
<i>Amnicola limosa</i>	10010104013018	7.33	0.00		--	8.7	0.0
<i>Amnicola grana</i>	10010104013019	6.00	0.00		--	7.1	0.0