

Data Sheet Green Harbor River Study

Friday
Date 7/25/03 Time 10:35 AM PM Tide was high at 9:17
start
in ocean

tide is coming into river
stronger currents keep pulling boat back toward dike

Height of water above sea level At 10.37 - 1/2 below sea level -1/4 at highest point

Location of testing Directly in front of dike (by boat)

Air temperature 82° F Water temperature (surface) by dike 61° F

Water temperature (1 meter deep) by dike 60° F
1.004 R side (fresh) Water coming in from harbor 1.026 (34 PP)
Specific gravity ((20 degrees C) ↑ Salinity by chart 5.55 PPT
1 m. down 10 m. Fr. outer edge constant 1.012 brackish

pH (surface) 7.2
pH 7.6 depth 1 m.

Nitrate 0 Nitrite 0

Dissolved oxygen 6.6 ppm

2.4
10.45

Secchi disk 3/4 meter (very turbid - rusty brown color today)

General observations: Water clarity Turbid, brownish, clumps of algal bloom brown foam swirling by dike
Odor salty near dike Water color appears brownish
Sediment sample Not done

Biological data: Common heron, egret, female mallard
Birds: female redwing blackbird seagulls

Plankton sample (see other pages) Very sparse sample; few copepods, 7 of the fan tail crustaceans (not IDed yet) and 1 new crustacean specie.

Macroinvertebrates NA

Invertebrates NA Water level too high Horae fly w/ yellow black stripes
lots of insects on algal mats (bloom) Tiny, grayish fly

Fish 1 banded killifish caught in plankton net 1.8 cm long estir.
Saw several fish jump for insects (see back)

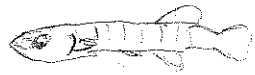
Comments: Water was higher than last 2 wks. It rained several times this week. Shows in the salinity & pH

Water started going out between 11:35 - 12:35. I was out in the boat circling the island. Lots of algal mats (bloom) on N side

2003 JULY 2003

Morning		BOSTON	Afternoon	
HIGH	4:46	SUNDAY	HIGH	5:16
Height	9.4	20	Height	9.3
LOW	10:57		LOW	11:26
Height	1.0	MONDAY	Height	1.4
Sunrise	5:25		21	Sunset
HIGH	5:38	THIRD QUARTER	HIGH	6:04
Height	8.9		Height	9.2
LOW	11:45	TUESDAY	LOW	---
Height	1.5		22	Height
Sunrise	5:26	WEDNESDAY	Sunset	8:16
HIGH	6:32		23	HIGH
Height	8.5	THURSDAY	Height	9.2
LOW	12:20		24	LOW
Height	1.6	FRIDAY	Height	1.8
Sunrise	5:27		25	Sunset
HIGH	7:27	SATURDAY	HIGH	7:44
Height	8.2		26	Height
LOW	1:15	JULY	LOW	1:26
Height	1.6		23	Height
Sunrise	5:28	SUNDAY	Sunset	8:14
HIGH	8:23		24	HIGH
Height	8.1	MONDAY	Height	9.3
LOW	2:10		25	LOW
Height	1.5	TUESDAY	Height	2.1
Sunrise	5:29		26	Sunset
HIGH	9:17	WEDNESDAY	HIGH	9:24
Height	8.2		27	Height
LOW	3:03	THURSDAY	LOW	3:08
Height	1.3		28	Height
Sunrise	5:30	FRIDAY	Sunset	8:12
HIGH	10:08		29	HIGH
Height	8.3	SATURDAY	Height	9.8
LOW	3:53		30	LOW
Height	1.1	SUNDAY	Height	1.9
Sunrise	5:31		31	Sunset

Eastern Standard Time - Corrected For Daylight Savings Time



Fundulus diaphanus, Banded killifish

Data Sheet (Green Harbor River Study)

Date _____ Time _____ AM PM Tide _____

Height of water above sea level _____

Location of testing _____

Air temperature _____ Water temperature (surface) by dip _____

Water temperature (1 meter deep) by dip _____

Specific gravity (20 degrees C) _____ Salinity by chart _____

pH (surface) _____ pH (depth) _____

Minute _____ Minute _____

Dissolved oxygen _____

Secchi disk _____

General observations: Water clarity _____

Odor _____ Water color appears _____

Sediment sample _____

Plankton sample (see other pages) _____

Macrobenthos _____

Invertebrates _____

Fish _____

Comments: _____

Biological data

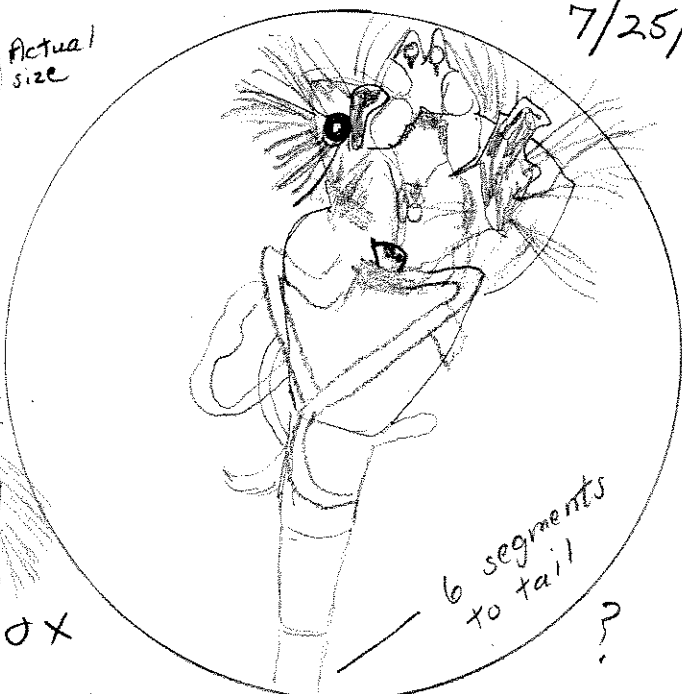
7/25/03

Actual size

end of tail

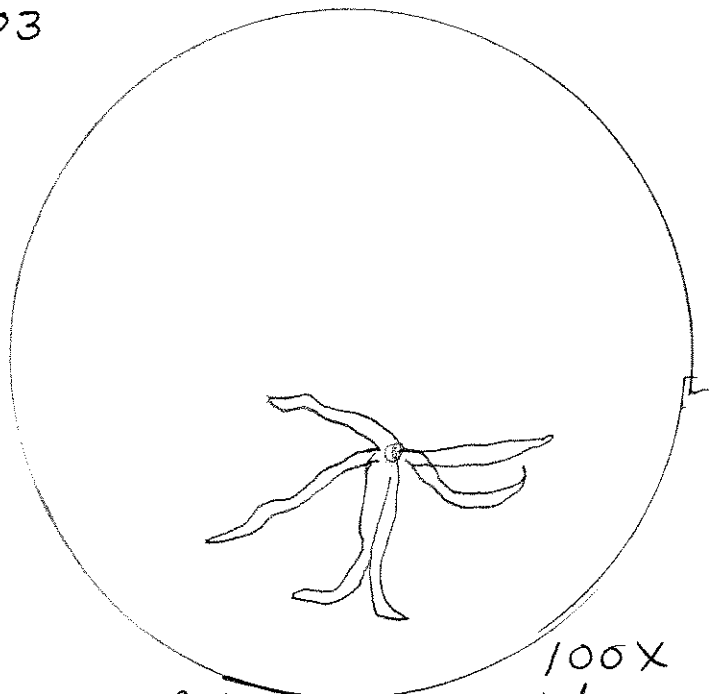


40x



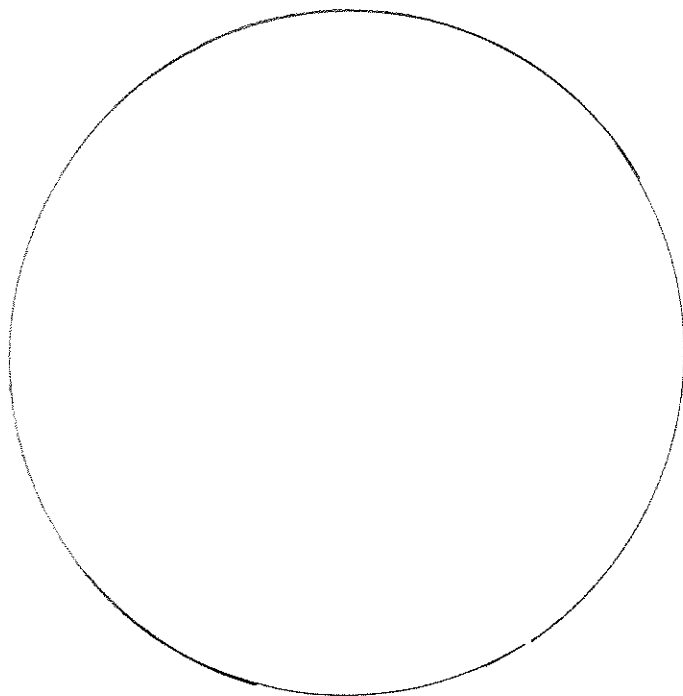
6 segments to tail ?

• 7 cm long, dead crustacean or insect larvae
Green, hairy projections at anterior end. Legs are decomposing; can't count. Looks like 4-5 projections on each side of each tail segment
Barnacle

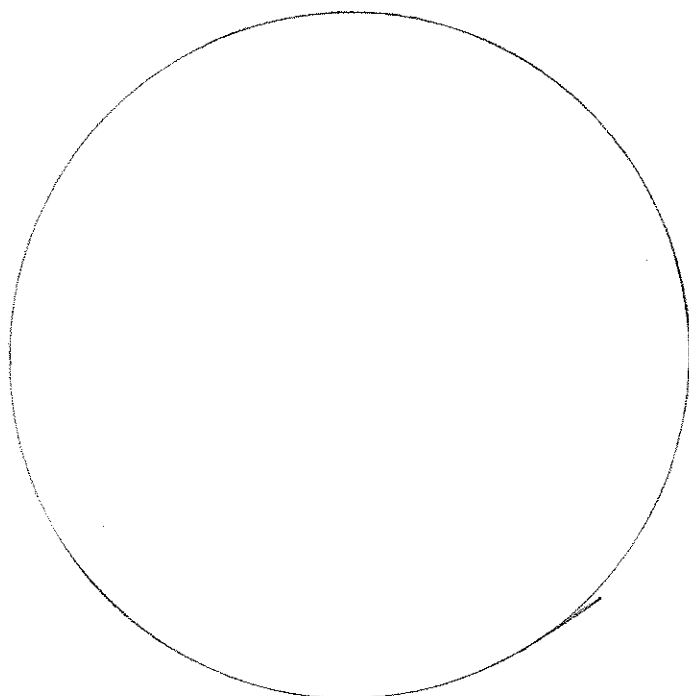


100x

Anthozoan Hydroid
Transparent
6 spiky projections from central area.
Have seen numerous samples (none moving) others had 5-7 projections



3 Copepods
Colanus sp.
not sketched



7 Un ID specimen ①
see 7/10/03

Today's sample was very sparse. Note the lack of Copepods (only 3). The water had a pH of 7.2-7.6 and salinity of 1.00 (not very saline this day)

Not drawn again - see previous weeks

Fan tail un ID crustacean HHT || Barnacle molt

Copepod
Calanus sp ||

Surprising to observe only a few
copepods.

Water was not very saline today.

The barnacle and hydroid were
identified from these sketches by Dr. Gene Gallagher
of UMASS Boston

10/4/03