

Weather - Cloudy  
Scattered shower  
Partly sunny

Data Sheet Green Harbor River Study

Left 1:15 PM

Date 8/8/03 Time 11 (AM) PM Tide Last high 8:25 AM

Height of water above sea level -0.5 m.

Rained 3-5" in the last 24 hrs.

Location of testing Front of dike, packed with floating algal mats (mats have washed down in rainstorm and got stuck)

Air temperature 80° F Water temperature (surface) by dike 73° F

Water temperature (1 meter deep) by dike 66° F

Specific gravity (20 degrees C) 1.006 Salinity by chart 8.3 ppt

Specific gravity (1 meter deep) 1.011 Salinity by chart ~15 ppt

pH (surface) 7.2

pH 7.4 depth 1 m.

Nitrate 0 Nitrite 0

Dissolved oxygen 5.5

Secchi disk 0.5 m.

General observations: Water clarity turbid

Odor of algae Water color appears brown

Sediment sample none taken

Birds: swimming cormorants today, pigeon under dike on pipe

Biological data:

Plankton sample (see other pages) 22 amphipods, 1 insect larva

Birds Cormorants, old pigeon under dike, blue heron, egret, herring gull

Invertebrates overabundance of insects on water and blooms (type of fly, horsefly, water boatman, beetle)

Fish 8 Fundulus sp. (~20 mm) caught in dip net (several scoops)  
1 American eel (~60 mm TL, 1 mm. diameter)

Comments:

Water was really high and there was no tidal action for about 1 hr. Around noon the water finally started going out and bloom was pulled occasionally further in.  
Snake (saw last wk. up near road)

got rained out so didn't do in bio today

Data Sheet Green Harbor River Study

2003		AUGUST		2003	
Morning		BOSTON		Afternoon	
<b>HIGH</b>	3:28	<b>SUNDAY</b>	<b>HIGH</b>	3:59	
Height	10.5	<b>3</b>	Height	10.4	
<b>LOW</b>	9:45		<b>LOW</b>	10:12	
Height	-0.3		Height	0.1	
Sunrise	5:39		Sunset	8:02	
<b>HIGH</b>	4:21		<b>MONDAY</b>	<b>HIGH</b>	4:49
Height	10.2	<b>4</b>	Height	10.6	
<b>LOW</b>	10:34		<b>LOW</b>	11:08	
Height	0.0		Height	0.1	
Sunrise	5:40		Sunset	8:01	
<b>HIGH</b>	5:17		<b>TUESDAY</b>	<b>HIGH</b>	5:43
Height	9.8	<b>5</b>	Height	10.6	
<b>LOW</b>	11:27		<b>LOW</b>	---	
Height	0.3		Height	---	
Sunrise	5:41		Sunset	8:00	
<b>HIGH</b>	6:18		<b>WEDNESDAY</b>	<b>HIGH</b>	6:41
Height	9.5	<b>6</b>	Height	10.7	
<b>LOW</b>	12:07		<b>LOW</b>	12:24	
Height	0.1		Height	0.5	
Sunrise	5:42		Sunset	7:59	
<b>HIGH</b>	7:21		<b>THURSDAY</b>	<b>HIGH</b>	7:41
Height	9.2	<b>7</b>	Height	10.8	
<b>LOW</b>	1:09		<b>LOW</b>	1:23	
Height	0.1		Height	0.7	
Sunrise	5:43		Sunset	7:57	
<b>HIGH</b>	8:25		<b>FRIDAY</b>	<b>HIGH</b>	8:42
Height	9.2	<b>8</b>	Height	10.9	
<b>LOW</b>	2:12		<b>LOW</b>	2:24	
Height	-1.1		Height	0.8	
Sunrise	5:44		Sunset	7:56	
<b>HIGH</b>	9:28		<b>SATURDAY</b>	<b>HIGH</b>	9:42
Height	9.3	<b>9</b>	Height	11.0	
<b>LOW</b>	3:14		<b>LOW</b>	3:24	
Height	-0.3		Height	0.7	
Sunrise	5:45		Sunset	7:55	
			<b>AUGUST</b>		

Eastern Standard Time - Corrected For Daylight Savings Time

Time

AM PM

Date

Station

Observer

Tide

Wind

Sky

Temp

Water temp

Air temp

Surface temp

Bottom temp

Water depth

Salinity

Dissolved oxygen

pH

Secchi disk

General observations

Water clarity

Odor

Sediment sample

Biological data

Plankton sample (see other pages)

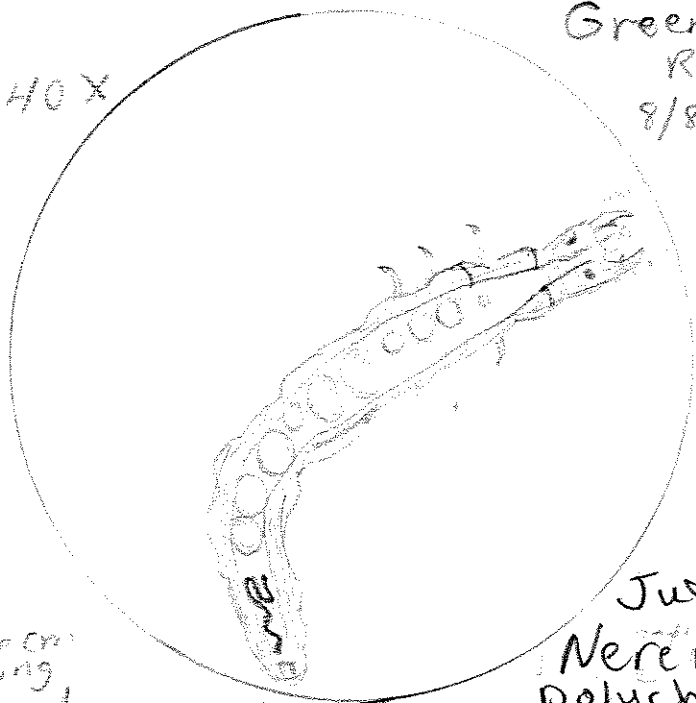
Fish

Invertebrates

Comments

Green Harbor  
River  
8/8/03

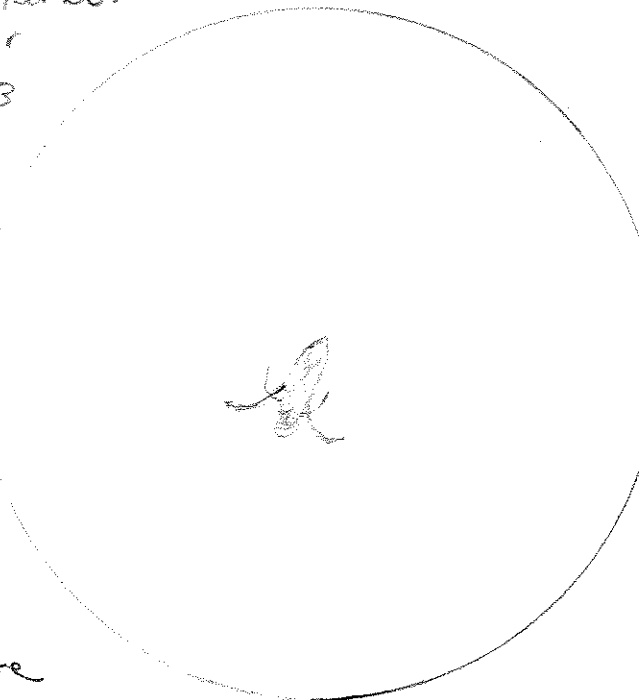
40X



Juv.  
Nereid  
polychaete

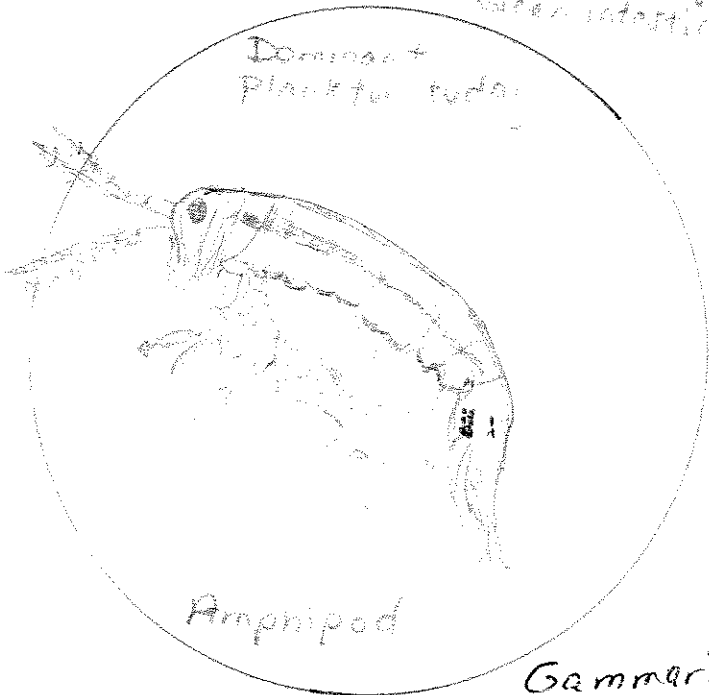
6 cm  
long

Appears to have three pairs of legs  
The circles inside have the appearance  
of ball bearings and as the muscles  
contract, the circles move. It  
spit out a green mush and may be  
eating a copepod. Brownish transparent.  
Green intestine



3X hand lens  
Water boatman  
Swims as in rowing  
Non-rowing legs are whitish  
and difficult to see  
Body 6 mm long

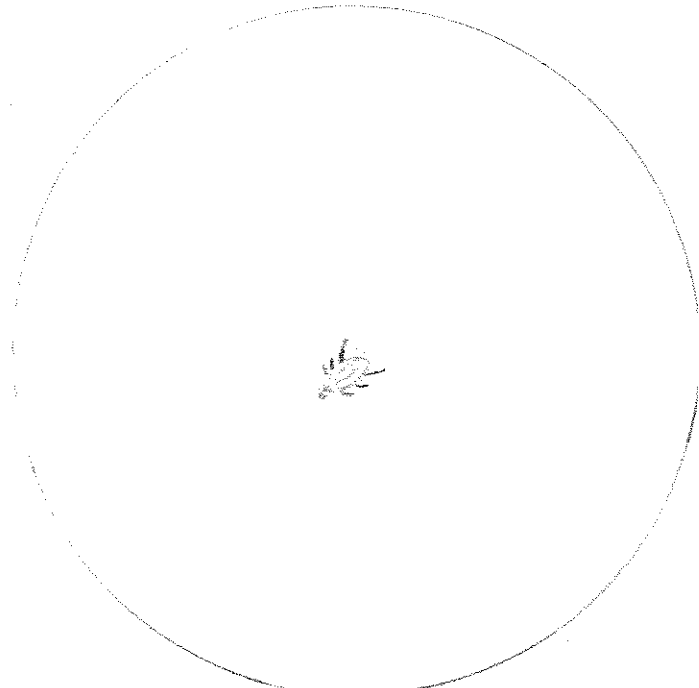
Dominant  
Plankton today




Amphipod

Gammarid

→ 11 segments plus head and tail  
→ 11 pairs segmented legs  
Big black eye  
Swims on side  
Inside intestine is gold/red/green.  
Legs thrashing about  
Antennae have 11-12 segments and



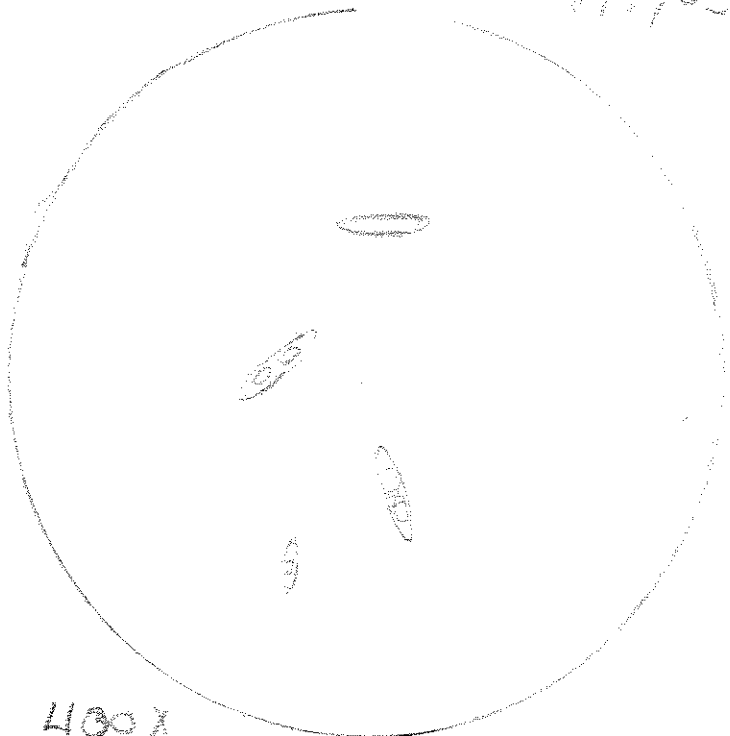
3X hand lens  
Beetle 2 mm long  
6 legs - reddish-brown  
Rear legs largest  
Swims very fast

6 of the amphipods were swimming  
in pairs; one was always much larger  
 mating?

The amphipods were probably hiding  
in the algae blooms.

X ① UnIDid species. for 10% data // ② found  
(Barnacle molts?)

9/4/03

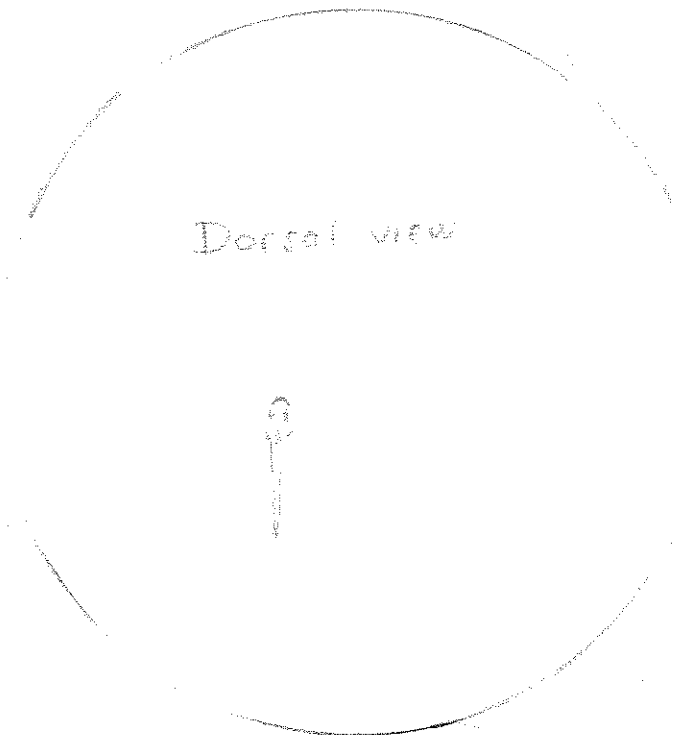


400x

### Navicula (Diatoms)

Elongated, transparent prototists

There are 750 on this slide. The sizes vary. They move in one direction and suddenly go backwards. They look like small boats moving through the water.



Dorsal view

0x

1.8 cm. fish

Fundulus sp.

### Banded killifish

Silvery anterior eye  
Big white eye with dark  
center pupil

Silver abdomen, not  
dark by heart area

Overall color is tan/olive  
with slight vertical  
stripes on lateral view

Saw two rotifers

This sample had the most interesting  
Protozoists

Lots of diatoms, as usual