

LEADERS -
MIKE McLELLAN
617-244-0998

JUSTIN CHEVOERT
617-965-6378

Envi-Sci 2006 presents ...
in association with Mike McLellan ...
a Justin Chevoert Tripslip ...



CUTLER PARK 9-4

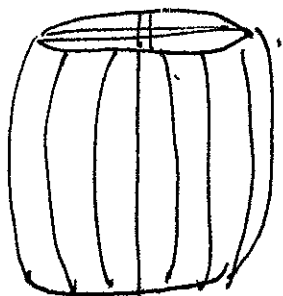
Gather 'round, Kiddles and let ol' grampa Justin tell you about the times when he went to Cutler Park. Cutler Park is one of the finest parks in all of Newton. There's a big ol' trail that goes around a big ol' pond, where the fish are as big as pickle barrels, and the mosquitos can devour a person in no time at all. There's also a swampish place, with tall grasses where you have to walk on planks to avoid the sink-holes. And if you're lucky, you can catch a glimpse of the high towers of the SCC in the distance. Yes, you'll never find a place more full of whimsy and wonder than ~~Cutler~~ Cutler Park!



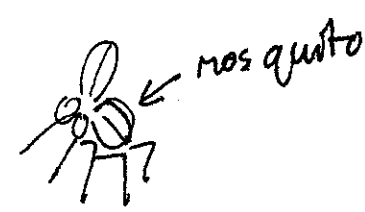
Go away. Gramps needs his sleep.

YOU NEED:
H₂O (water)
Rainingear
Lunchizele
bug spray/sunscrizele

Pickle Barrel





Fish as big as a pickle barrel.
← Grampa made that part up.



BLANK SPOT

In case of emergency, your child will be brought to:
Newton Wellesley Hospital: 617-243-6000.
This program must comply with the regulations of the Massachusetts Dept. of Public Health and must be licensed by the city of Newton Health Department.







DAVID Krin S Kys'   Location: Brown
Time: 9-4



Mike Mclellan

617-244-8836

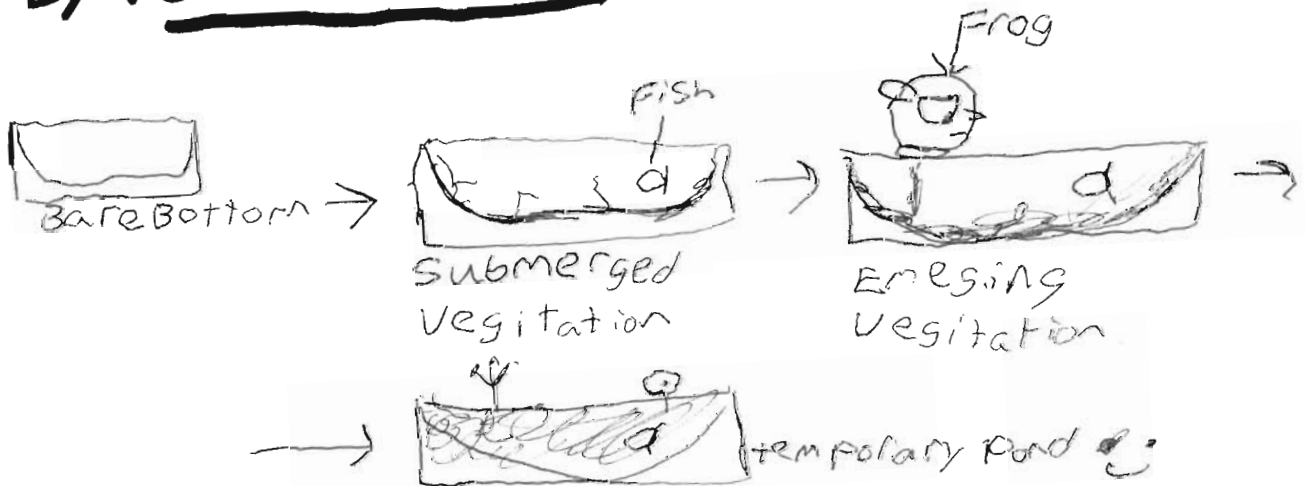
David Krinsky
617-332-4459
PAWK

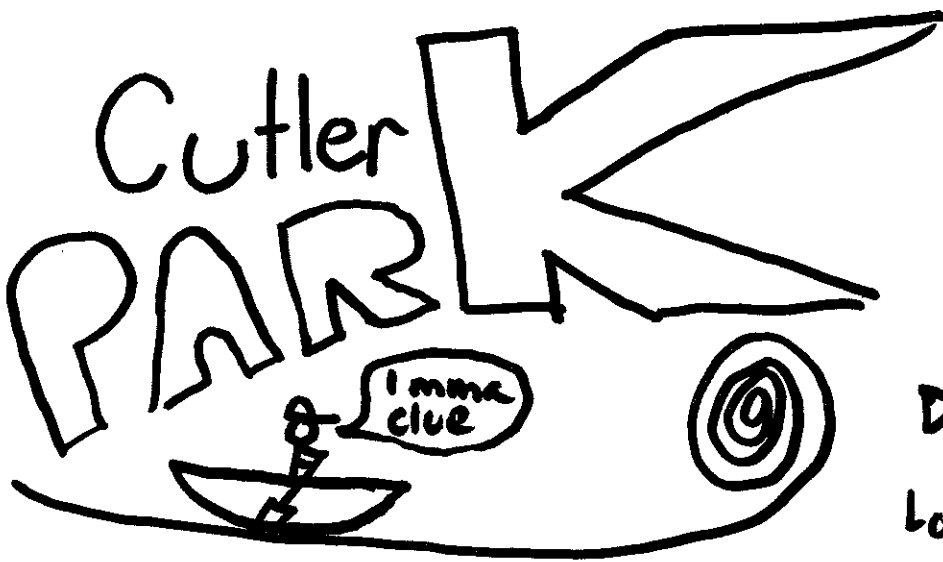
- YOU NEED
- 2L of water 
- Daypack 
- lunch 
- hiking boots 
- *notebook 
- *pencil 



For my OD... we are going

to cutler (Pause for gasp)! It is located in Needham. The marsh lands were created by flooding from the Newton Upper Falls Dam. The marsh was formed by Pond Succession. Here is a Pond Succession





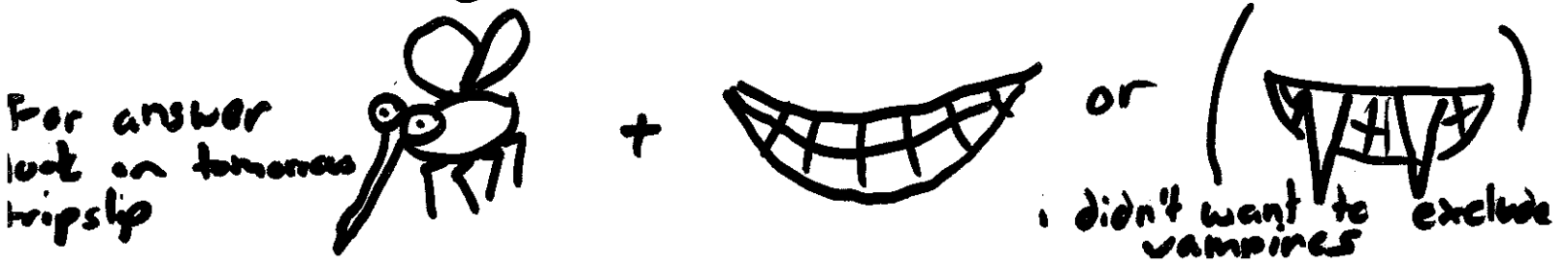
With: Mike Mdellan
617-244-0998
Justin Chenevert
Using: daypack, H₂O,
lunch, raingear,
boots, etc.

During: 9 am - 4 pm
Located at: Brown Middle
School.

Welcome to Cutler Park! or, since we aren't there yet, welcome to the group that will be walking to Cutler Park. Hey returning students, remember that time we stopped here on one of our trips? I do. Not sure to which trip I'm referring? I am. Look up for a big clue (hint: not vertically up but rather at the top of this page). Returning students may also remember when we cleaned up Cutler Park on Clean up day. I remember clean up day as if it were yesterday (or today if you are reading this on Monday). In fact Cutler Park is very close to Angino Farms which we cleaned up today (or yesterday).

Fun Snapple Fact:

How many teeth do mosquito have?



For answer
look on tomorrow's
trip slip

I didn't want to exclude
vampires

Trip slip #3

July 6, 2004

Meet @: Brown MS

Time: 9am - 4pm

Leaders: Lyuda Kovalchuk
617 • 558 • 5567



Jeff Huenemoerder
617 • 332 • 9506

Cutler !PARK!

a.k.a. Dedham Marsh

* What you need: Boots, water, lunch, raingear, bug spray, 1st aid kit, notebook + pencil

On this trip, we will set off on a journey to Cutler Park, a marshy place next to the Charles River. This park helps to control flooding when the river overflows and is also an excellent place to learn about pond + forest succession, which we will be doing. Here is a preview:

Pond succession



① Stage: Bare Bottom

description: bottom of pond is bare => devoid of all life



② Submerged vegetation

small plant life appears, but stays below surface, also there are small fish



③ Emerging vegetation

plants begin to grow above surface



④ Temporary Pond + prairie

former pond is now a bog or marsh, water begins to dry up

in case of an emergency, your child will be brought to:

Newton-Wellesley Hospital (617) 243-6000

This program must comply with the regulations of the Massachusetts Department of Public Health and must be licensed by the City of Newton Health Department

Trip slip #3

7-5-99

Leaders: Gabe "lanky" Yospin : 969-3966

Jon "Minime" Rivnay: 1-800-I'm short

527-1849

↓ joke

Time: 9-2

Place: BMS

Stuff: Field kit, a power packed lunch, 5 (five) pounds of unprocessed land (no salt added), bug spray, Waterproof boots.

Dedham Marsh

Today you will have the combined powers of the very tall (Gabe), + the very small (Jon). Together, we'll be showing you Dedham Marsh. One of the things that you'll need to know is a process called

1

2

3

4



POND SUCCESSION

bare bottom

Submerged
Vegetation

emerging
vegetation

Temporary pond
and prairie.

Usually, this takes a very long time to happen. It can happen very quickly, however, if something called

EUTROPHICATION

occurs. Man-made fertilizers accelerate plant growth tremendously + small ponds (like in golf courses) can fill in in a single year. Tomorrow, we'll see which state the marsh is in.

THE TALL



THE SMALL



ENVIRONMENTAL SCIENCE PROGRAM

1 9 9 6

Trip slip #6
July 10, 1996
9am to 2pm

Meet at:

Newton South

Your Leaders

Dan Polivy

964-1313

Jeff Wong

332-3617

Equipment List

- Field Kit
- Lots of water
- Large lunch
- **Bugspray and sunscreen**

Remember...

READ YOUR TRIPSLIPS!

*They contain important information about your trips! If you have questions, call your leader. If you cannot make your trip, please be sure to call either Molly or your leader(s). Lastly, **HAVE FUN!***

Cutler Park

(AKA Dedham Marsh)

Where is Cutler Park?

Cutler Park, which is otherwise known as Dedham Marsh, is a large floodplain of the Charles River. It is an MDC reservation, and it borders Dedham, Needham, and Newton. It is a great place to learn about such things as water testing, pond and forest succession, and identifying plants that grow in wetland areas.

What is succession?

Succession is the term used to describe the process by which a pond changes into a forest.

Pond Succession

1. **Pioneer:** there is very little plant or animal life, and there is a bare, sandy bottom.
2. **Submerged vegetation:** there is some small vegetation and fish, but it is under the surface.
3. **Emerging vegetation:** plants begin to break the surface.
4. **Temporary pond and prairie:** the area turns into a bog or marsh, and the water begins to dry up.

Forest Succession

1. **Meadow:** tall grasses and shrubs.
2. **Pioneering:** small trees, such as birches or sumacs grow.
3. **Mid-stage:** pine and other fairly large trees begin to grow.
4. **Climax:** larger trees, such as maples, oaks, and spruces appear.

Things to think about...

What is Eutrophication? How is it related to succession?
What does pH stand for? What does it measure?
How long does succession take? A few months? A year?
What is the difference between a pond and a lake?
Sigmund Freud had a morbid fear of ferns.

name of trip

Trip #3

Cutler Park

trip number

day of trip

Date: 7/6/04

Leaders: Jeff Huemurder (617-332-9506), Lyuda Kovakhuke (617-558-5567)



hours
time
9am-4pm
tree

What to bring: hiking boots, water, food, raincoat, bug spray, daypack

Cutler Park, aka Dedham Marsh is a flood plain for the Charles River. Whenever there is a lot of rainfall and the Charles River floods, Cutler Park will take a lot of the runoff water and help ease the flood. Cutler Park is a prime example of succession. There are two different kinds of succession; pond succession and forest succession.

Pond Succession:



Forest Succession:



In case of an emergency, your child will be brought to: Newton-Wellesley hospital 617-243-6000

Leaders: Amelia "Cold Chillin" Rungan (617-244-8836)

Times: 8:30 AM - 4:00 PM 7/8/02

Meet @ Brown Middle School

Equipment: Hiking Boots, H₂O, Lunch, raingear, Bug spray, Field kit (first aid, note book, pencils, compass, etc...)



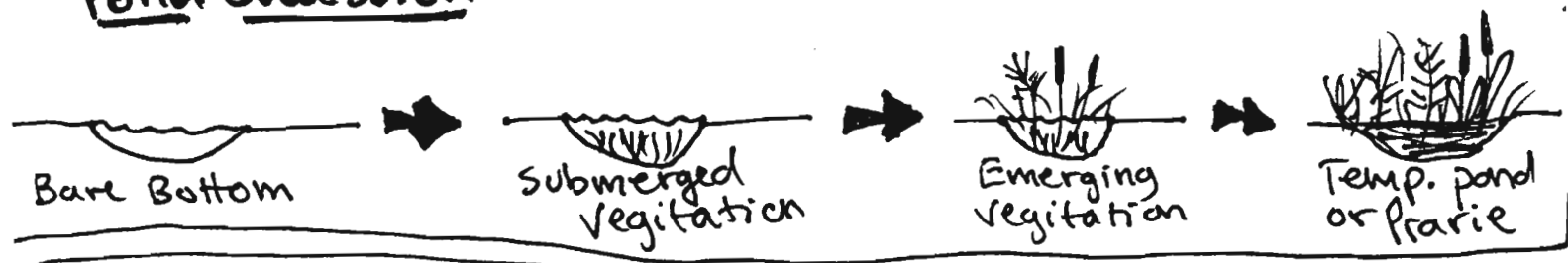
Dedham / Cutler

marsh / park



These 2 places are actually the same place, it's just that it has 2 different names. But anyways, Dedham Marsh is a flood plain for the Charles River, which means when the river floods, the marsh takes up a lot of the water and helps control the flood. Dedham Marsh is also a really good place to review what we learned about pond and forest succession on Friday.

Pond Succession



Forest Succession



Wetlands like Cutler Park are an important for the wildlife living there. Wetlands are extremely diverse ecosystems, with a lot of different types of plants and animals. What lives in wetlands and why are they important? How are the wetlands environmentally important to the Charles?

Come on down! You'll be heading for...

Your Leaders:

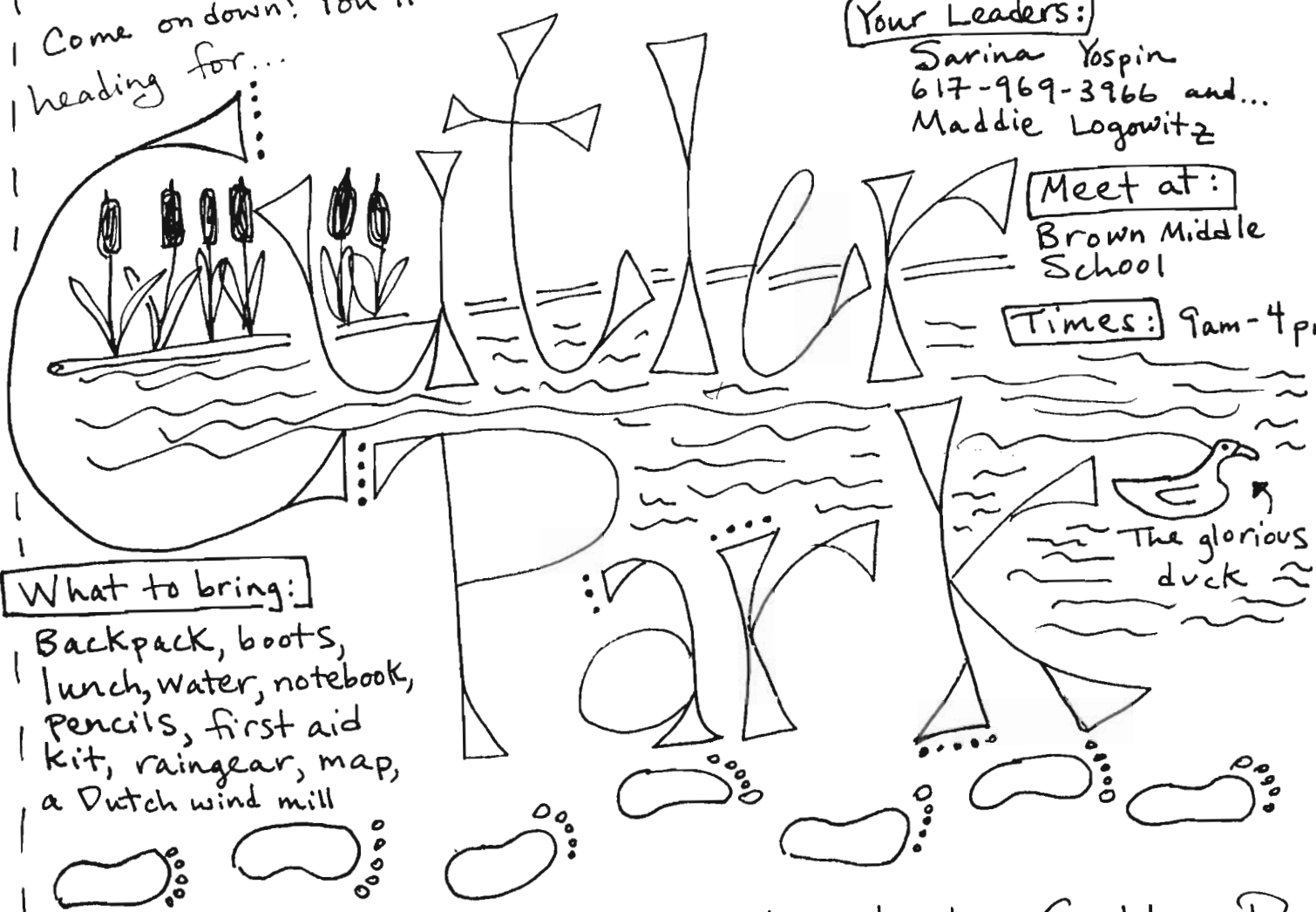
Sarina Yospin
617-969-3966 and...
Maddie Logowitz

Meet at:

Brown Middle School

Times:

9am-4pm



What to bring:

- Backpack, boots,
- lunch, water, notebook,
- pencils, first aid kit,
- raingear, map,
- a Dutch wind mill

So, you've decided to head to Cutler Park, a lovely marshy place along the banks of the River Charles. Tomorrow, Maddie and I will take you on a wild ride through the realm of FRESHWATER ECOLOGY! wow! The most important part of the freshwater system is the part you can't even see - the tiny algae and phytoplankton -- WILD! We'll bring our large, curious eyes, some water test kits, and that famous EnviSci braininess along to learn and have fun!

ENVIRONMENTAL SCIENCE PROGRAM

1 9 9 6

Trip Slip #6
July 10, 1996
9am to 2pm

Meet at:

Newton South

Your Leaders

Dan Polivy
964-1313
Jeff Wong
332-3617

Equipment List

- Field Kit
- Lots of water
- Large lunch
- **Bugspray and sunscreen**

Remember...

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Cutler Park

(AKA Dedham Marsh)

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Forest Succession

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2. **Pioneering:** small trees, such as birches or sumacs grow.
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Things to think about...

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What does pH stand for? What does it measure?
How long does succession take? A few months? A year?
What is the difference between a pond and a lake?
Sigmund Freud had a morbid fear of ferns.

Trip slip # 5
7-7-98

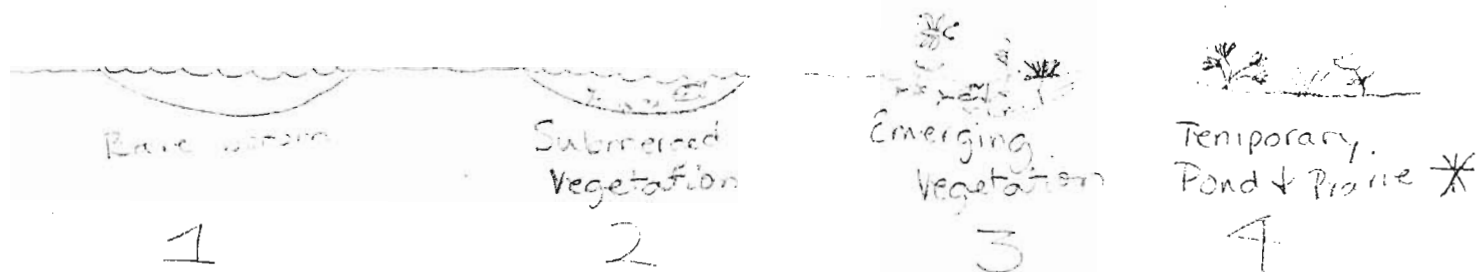
Leaders: Gabe Yospin 969-3466
Alex Kraus: 964-7768

Time: 9-2

Place: Brown

Stuff: Field kit,
super special lunch,
waterproof boots, bug spray

Cutler Park (aka Dedron Marsh)



Right now, you're probably looking at these pictures and thinking, "Hey! That's pond succession!" All ponds go through this type of succession, although some do it faster than others. Usually, it takes several years for this to happen to ponds. However, through a process called Eutrophication,

ponds can fill in more quickly. In the presence of phosphorus, common ingredients in fertilizers, algae and other plants grow very quickly. All these plants deplete the oxygen supply, everything dies, turns to dirt, and the pond fills in very quickly. This can be a real problem, because once the ponds are gone they're really tough to get back. Tomorrow we'll see what stage Cutler Park is in. Yeehaw!

* Hey! Put this sheet in your notes! It has good drawings.

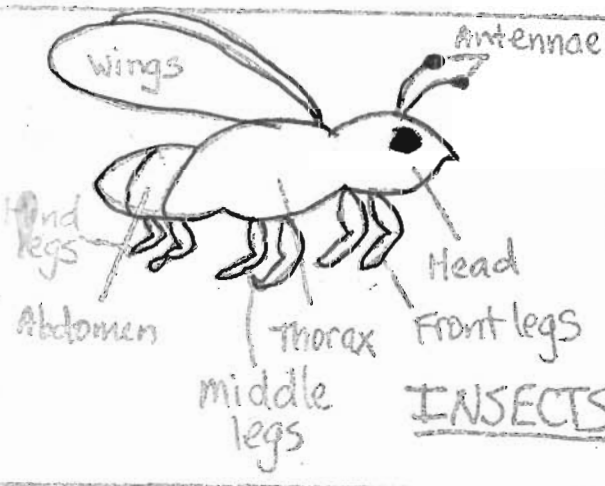
START: 9:00 AM
 END: 2:00 PM
 Leaves From: Newton South
 Leaders: Me + Beth-Ann (332-2827)

Molly Smith
 Trip Slip #6
 Tuesday July 8th, 1997

CUTLER PARK

Equipment:
 Boots
 Field Kit
 Lunch
BUG-REPELLANT

Main Topics We will Explore:
 ★ The Differences Between
 A MARSH and A FOREST.
 ★ Reeds, Rushes, Grasses
 And Sedges.
 ★ Pond Succession!!



Cutler park is a marshy area located on the border of Newton, Needham and Dedham. You will be using your map and compass to find our route to and from the park. A marsh is very different from a forest and the plants and animals living in a marsh are very unique. Kittery was a marsh so we will be seeing similar plant life at Cutler Park. Don't forget Bug spray because there will be bugs.

- Reeds + Rushes are Round.
- Grasses are flat.
- Sedges have edges.

REVIEW

1. What are the stages of pond succession?
2. How many needles ~~have~~ do white pines have? Red? Pitch?

2nd Day: DEDHAM MARSH

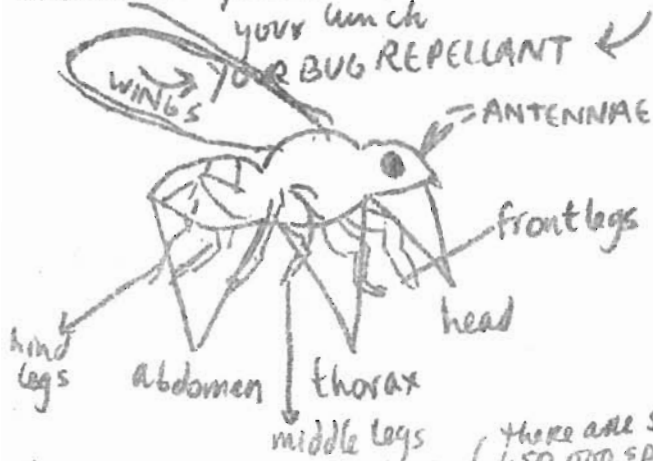
TUESDAY 2 JULY 1985

① your leaders: Wendy Gross (665-9821)
and Sarah Beasley (332-2932)
NSHS 9AM - 2PM

Remember: your BOOTS!

your lunch

YOUR BUG REPELLANT ←

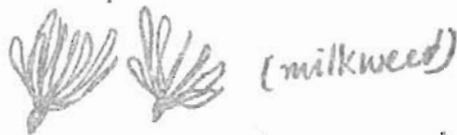


INSECT PARTS (there are some 650,000 species of insects known) (how many UNKNOWN?!...)

②

TO GET a general idea of where we are going, look for Cutler Park on your Newton topo. Now How do you intend to get there?

what kind of conifer looks like this??



- what STAGE of a POND is a MARSH? Sarah will give you a brief description of POND SUCCESSION because I don't have room.

REMEMBER:

Reeds + rushes are round
grasses are flat
and SEDGES have EDGES

And now..... POND SUCCESSION!

① First, we start with an ordinary pond with possibly marshes nearby and forest fairly close. (?)



② Then, over time animals and plants decay to form a layer of buildup (coal!) like this....



③ More buildup, more decay and less H₂O on the bottom; larger woody plants begin to move in and soon it is a forest!



FYO Dedham Ala is currently in the marsh stage

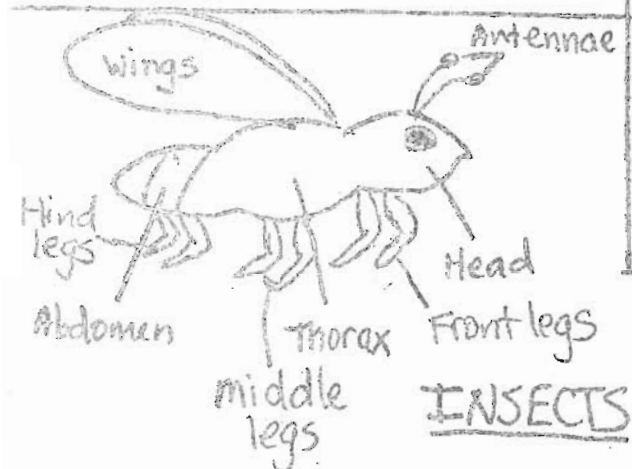
START: 9:00 am
END: 2:00 pm
Leaves From: Newton South
Leaders: Me + Beth-Ann (332-2827)

Molly Smith 905-197
Tripslip #6
Tuesday July 8th, 1997

CUTLER PARK

Equipment:

Boots
Field Kit
Lunch
BUG-REPELLANT



Main Topics We will Explore:

- ★ The Differences Between A MARSH and A FOREST.
- ★ Reeds, Rushes, Grasses And Sedges.
- ★ Pond Succession!!

Cutler park is a marshy area located on the border of Newton, Needham and Dedham. You will be using your map and compass to find our route to and from the park. A marsh is very different from a forest and the plants and animals living in a marsh are very unique. Kittery was a marsh so we will be seeing similar plant life at Cutler Park. Don't forget Bug spray because there will be bugs.

- Reeds + Rushes are Round.
- Grasses are flat.
- Sedges have edges.

REVIEW

1. What are the stages of pond succession?
2. How many needles ~~have~~ do white pines have? Red? Pitch?

Times → 9-2:00pm
 Meet at → Newton South
 Equipment → Day-pack, boots, water, lunch,
 bug spray, suntan lotion.

Molly Smith 965-1979
 Trip slip #5
 July 7, 1993

DEDHAM MARSH

After orienting our maps and choosing a good route, we will head out to Dedham Marsh. A marsh is a pond that is in the "Temporary Pond + Prairie stage" of Pond Succession. Do you remember the other stages? You will be tested on them. Once (if?) we reach the marsh we will be comparing that environment with others that we have seen such as forests, ponds and rivers. This trip is also a good prelude to Kittery,

Along with observing a marsh environment we will be doing a few water tests. The pH kit measures the acidity of the water. A reading of less than 7 means the water is acidic, greater than 7 means basic. What are some liquids that are acidic or basic? The level of acidity of a body of water tells us many things:

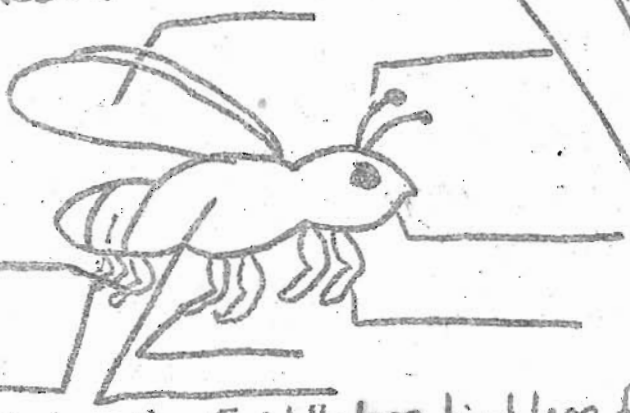
- ① what types of plants and animals can live there.
- ② the acidity of the local rain-fall, and,
- ③ whether the body of water is "healthy."

Acid Rain is a big problem today, so we need to check our lakes to be sure they are

What is the most common identified plant at ESP GRASS!

However, when walking across a lawn or park, you could be trampling on many different types of "grasses." It could be Bermuda grass, or crab grass, or many other types. It is also possible that it isn't even grass at all. It could be a reed, rush or sedge. One way to distinguish these from grass and also from each other is with this rhyme:
 Ridges have edges, reeds+rushes are round

QUIZ OF THE DAY: answer + bring on trip.
 THE INSECT!



Label with these terms { middle legs, hind legs, front legs, head, thorax, abdomen, wings, antennae }

what do you think the differences will be between salt + fresh water marshes?

7/7/98

TRIPSLIP #5

LEADERS: ALEX KRAUS (964-7768)

GABE YOSPIN

TIMES: 9AM - 2PM

MEET @ BROWN

EQUIPMENT: FIELD KIT, WATER, LUNCH, BUG SPRAY, BOOTS

CUTLER PARK

Cutler park, which is also known as Dedham Marsh, serves as a flood plain for the Charles River. This means that when the river floods, the porous soil and wetland plants in the marsh absorbs some of the water, which helps control the flood. Given all the rain we've had recently, the park has probably been doing a lot of flood controlling, don't be too surprised by a little mud. Oh! Yeah, I forgot, you all just finished Kittery, you just got muddy!

Now that you have been introduced to the concept of ecological succession, Cutler Park is a great place to test your new found knowledge. When we get there, see if you can figure out what stage(s) of pond succession the park is in. Here are the steps, just in case:

1. Bare Bottom- no fish, very few plants, mainly sandy bottom.
2. Submerged Vegetation- more plants, some smaller fish, slightly muckier bottom.
3. Emerging Vegetation- plants coming through the water's surface, bigger fish, and more muck.
4. Temporary Pond and Prairie- pond is filled in. A whole lot of plants, but no water means no fish.

The last stage of pond succession also marks the beginning of forest succession, but we'll go into more depth about this later.

Like the salt marsh at Kittery, Cutler park is an important wetland. Wetlands serve many essential ecological purposes, and are some of the worlds most biologically diverse ecosystems. However, despite their importance, due to agricultural and developmental demands, wetlands have become endangered through their destruction by humans. What parallels can you make between the salt marsh at Kittery and the marsh at Cutler Park. What similar functions do they perform? How are they different?

CUTLER

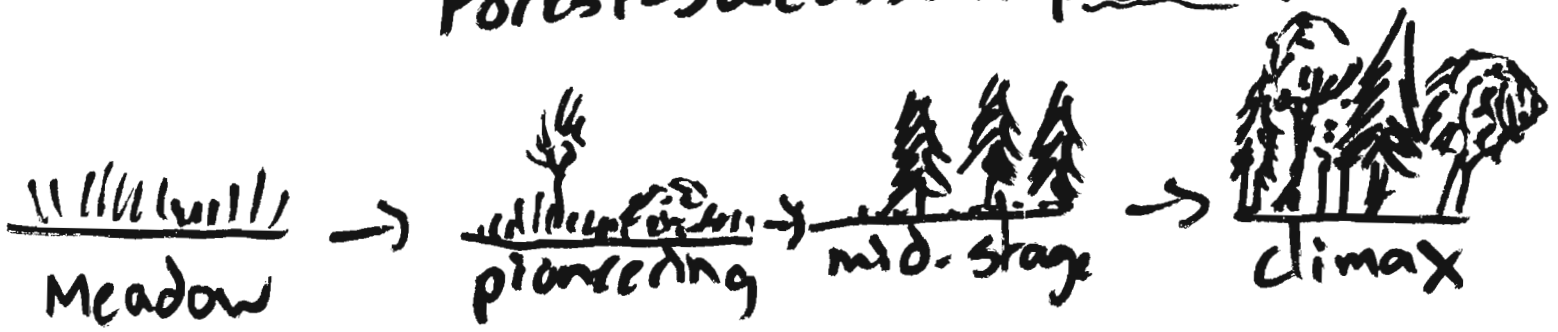


9 am • Brown • July 7 • Maddie - 617-964-7689
• Sarina - 617-969-3966

Bring your hiking boots, water, lunch, raingear,
and bugspray!

Cutler Park is a marsh. It is a flood plain for the Charles River, which means when the river floods, the marsh absorbs a lot of water. We will learn about not only pond succession, but also (da-da-da-d!) forest succession. Yay!

Forest-Succession preview!



Cutler Park



July 11, 1995
Tripslip #6
Times: 9-2

also called

Dedham Marsh

Leaders: Sarah Northrup 965-4602

↓
Dan Polivy 964-1313

Equipment:

Field kit, water,
lunch, boots,
Bug spray,
Sunscreen.

Cutler park is a great place to go to learn about Pond and Forest Succession. It shows the different stages very well.

Pond Succession



1. Bare bottom - very little plant life or fish.



2. Submerged vegetation - some small fish, plant life all below surface



3. Emerging vegetation - plants begin to grow above the surface.



4. Temporary pond and prairie - the area turned into a bog or marsh

Forest Succession



1. Meadow - tall grasses and shrubs



2. Pioneering - small trees like birches or sumacs



3. Mid-Stage - more, larger trees (birches & pines)



4. Climax - bigger trees (maples, oaks, spruces)

9am to 2pm at Brown Middle School

Trip slip #6 July 11, 1995

Dan Polivy 964-1313

Sarah Northrup 965-4102

CUTLER PARK

Equipment + stuff

- + Day pack
- + Boots
- + LOTS O' WATER
- + LUNCH (and yummy food)
- + BUG SPRAY ←
- + Sunblock

What is Cutler Park?

Okay. Good Question. Cutler Park is a marsh on the border of Newton, Needham, and Dedham. Cutler Park is also known as Dedham Marsh. Okay, so, first off, we'll

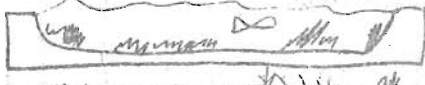
use our map skills to find a route to the marsh, and then we'll walk over there. When we get there, we will learn about POUND succession. Here are the basic

stages of pond succession:

bare Bottom/Pionering:



Submerged Vegetation:



Emerging Vegetation:



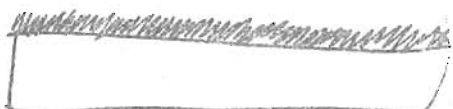
Temporary Pond or Prairie:



Meadow or bog:



Climax:



Review and whatnot

1. How many needles do red pines have? white? pitch?
2. What's the difference between Red and white oak?
3. What characteristics do all Coniferous trees share?

Answers 😊 (use a mirror)

1. 50-100; 2. 10-20; 3. 10-20
2. 8-10; 12; 60-100; 10-20; 10-20; 10-20
3. 2-4; all pines cones?

Cutler Park

Trip #3, Cutler Park

Leader: Dan Thomases (527-2763)

Allan Tellio (969-4057)

Date: 3 July 1996

Time: 9:00am-2:00pm

Equipment: Lunch, Water, Raingear and

Field Kit (back-pack, first-aid kit, including spare change and moleskin, extraboot laces, boots, sharpened, or usable, pencils, note book compass and map).

On this trip we will journey to a park not too far from the Novitiate area called Cutler Park. This Park is part of a marshy area located right next to the Charles River.

Have you learned about pond succession? Well just in case, here is what it means: Pond Succession includes the stages in which a pond goes through. When a pond first begins it has what is known as a bare bottom, because there is no vegetation on the bottom of the pond. Then in comes very small life, life such as algae. When there is enough life to feed larger life in come fish. Then what can happen is the vegetation can start to grow more and more. This can weed out the fish. Eventually there is more vegetation or plant life than water. Here we have a marsh. Behind Newton South there is a very large marsh which is quite different in appearance than a pond.

Pond? What is a pond any way? And what is the difference between a pond and a lake? Look at these two, err three, possibilities for a body of water and you guess what the difference is.



CUTLER PARK

Equipment: Boots, Field kit, Lunch

(969-7407)

Agatha Clancy

Trip #3

July 5, 1993

Time 9:00 - 2:00

Jan Ordorica

(244-5023)

Today we will be discussing Pond Succession. First what is Pond Succession? It is an orderly series of changes in the plant life inhabiting a particular area.

The stages are

Pioneer Stage - mainly sandy hardly any fish or plants (microorganisms).

Submerged Vegetation Stage - first fish or plants (→)

Emerging Vegetation Stage - larger plants like cattails emerge

Marsh - plants fill more from the edge of pond plants grow toward the center

Bog - trees are grown humus filled bottom

This cycle can be interrupted by fires, volcanic eruptions, dust storms, hurricanes, glaciers or floods. Usually the plants will die and go back to an earlier stage.

We will also be taking water tests. A pH test and a nitrogen test.

What is a pH test? it determines the acidity or alkalinity of the substance the pH scale is between 0-14 7 is neutral if the pH is lower than 7 than the solution is more acidic. If the pH number is higher than 7 then the solution is more alkaline.

What is a kettle pond? a depression left by a glacier. it was formed by an isolated block of glacial ice that melted.



CUTLER PARK or Dedham Marsh

Pick the Name That Sates you

Leader Tom. Phone 969-2051

July, 1988 9:00-2:00



You also have to pick the Route.
Once we get there we'll talk about the
4 parts of Dad Sates's, etc.

POND Success, on!

We start with a pond like the
ones around this area. The pond will
start accumulating organic matter. The
fastest is on the edge of the pond.

Then plants start to grow on the
pond and as the oxygen, the pond
becomes a marsh. The forest starts
to move in on the marsh,
the type of trees are mostly Birch.
The water is in the summer in
the winter it is dry.

The best is the forest, we're in
the timber forest



Dedham Marsh



Leader Kim Myers (527-3320)

Times 9-2 pm

Equipment; your regular Field Kit.

• Well walk from South down Nahant St across the Charles to

The MARSH

Someone should bring a copy of Pond life (Lize).



amphibians

Objectives:

- ① To study Pond Succession

- ② To examine (extensively) the water in the area
- ③ Decide in what stage of Pond succession this pond is in!



It is also a good idea to bring along some extra water for this trip. Cause it is gonna be a hot day!

In addition someone should bring a Basic Ecology book, which tells exactly how Pond Succession Occurs.

Can you identify

this Dose?



Trip: Dedham Marsh ①
Date: July 7, 1982
Leader: Debbie Autor
Phone #: 332-503
Equipment: Field Kit

Boots
Lunch
Water

We will also be bringing:
Water test Kits
Vials (for samples)
Books - Pond Life
Inland Wetland Plants
and others.
also: Geology of Newton
Rock Hammers
Dip Net (2)

We will be walking
to Dedham Marsh
and Cutter Park.
Look for Cutter Park on
your map, and we will
plan a route.

2) Eventually, the
decayed bodies of
these plants and
animals form a layer
over the bottom.
New plants, such
as large and branching
green algae (hard) start
to grow. Other animals
also begin to live in
the pond. This is
the submerged
vegetation stage.

3) Gradually plants
such as cattails
and bulrushes have
grown, and water-
lilies may also be
seen.

Dedham Marsh is
a flood plain. This is
a section of land
which holds water
during a flood. It has
very low plant cover.

We will identify
some of these plants
and discuss how they
have adapted to
wet conditions.

We will also try
to find and identify
some animals. Keep
your eyes open for
birds.

Marsh - a pond so filled
with vegetation that there
are no longer large
areas of open
water.

This is the emerging
vegetation stage.

4) ~~After~~ After a while,
there is too much
vegetation for animals
to survive, and the
pond becomes a marsh.

5) Eventually, the
pond dries up, and
enters the temporary
scum stage.

6) It goes through
many more stages,
but eventually the
pond will end up
as a forest.

When a body of water
goes from a pond
to a marsh it is called
POND SUCCESSION.

This evolution can
take thousands or even
hundreds of thousands
of years.

1) When a pond is first
formed it has a
sandy bottom.

We call this its pioneer
or bare bottom stage.

At this point only
very small and micro-
scopic animals live
in the pond, depending
on the bare bottom
for food. There may
also be a few fish -
black bass - bluegill -
speckled blackhead - all
who make nests on the

Questions ^{sandy bottom} ⑤

What is the difference
between a swamp and
a marsh?

What is the importance
of a flood plain?

What happens if you
build on the plain?

What is the dominant
plant of the flood plain?

Where is there
evidence of pond
succession?

Can you find any
evidence
at Dedham Marsh?

reach the surface and stay there. This is the emerging vegetation stage. The next stage is a Temporary Pond.

The temporary pond only exists at times of the year when it is warm and wet. In the winter and drought the pond does not exist. The most important stage to us is the marsh stage when there is little open water. Why is it the most important to us today? Well, what stage is Cutler Park in?

Also at Cutler park is an esker or glacial ridge. An esker is a small ridge made by the glacier and it always follows the direction of the glacier

We'll also be doing my **OWN DESIGN!**

An own design is a special program designed by a counselor leader for one trip. My O.D. (abbr.) is going to be on medicinal plants. It's a neat subject and lot's of fun.

We'll be looking at lots of plants and too many things to state here but make sure you bring note books, plastic bags, & a couple paper and garbage sacks

We will be traveling for our beneficial interest to and fro with Simon's group. So come along for some plant medicine.

Leader: Daniel Ordorica (244-5023) & Agatha Clancy (969-7407)

Times: 9:00AM to 2:00PM

Equipment: Field Kit (remember especially-boots, water and lunch) Bug Repellent

Cutler Park, also known as Dedham Marsh is a floodplain of the Charles River. On this hike we will be learning things such as pond succession and finding different kinds of plants that inhabit the marshlands.

Pond Succession is a term used to describe the process in which a pond slowly, over a long period of time, changes from a pond into a forest.

1) The first stage is the pioneer stage.

This is when the pond is newly formed, and has a sandy bottom.

2) The second stage is the submerged vegetation stage. This is when there are plants, but they are underwater.

3) The third stage is the emerging vegetation stage. This is when the plants are just breaking the surface of the water.

4) The fourth stage is the marsh. This is when the plants have filled up the pond, and there is hardly any open water to be seen.

5) The fifth stage is the temporary pond and prairie. This is when the pond begins to dry up, and is completely dry in summer.

6) The last stage is called the climax stage. There is no pond left, and forest succession begins.

So there you have it. When we get to Cutler park, we should be able to categorize the different areas that we will see by the stages we have just mentioned.

... TIMES - 4 - 2
A Cole W. Stanton production...

Tom Stone Pictures Presents

CUTLER

PARK



Cole Stanton (964-5857) EQUIPMENT: Your Field Kit

Cutler Park is a large MDC Reservation on the Dedham and Needham borders with Newton. Comprised of marsh, pond, river, and forest environments there is a large and diverse amount of things to see.

The primary theme of our Cutler Park Trip is going to be SUCCESSION. Succession is the word we apply to Nature's regular cycle of change in the environment. In nature a body of fresh-water is formed by various means, perhaps as a kettle pond (Ⓞ-What is a kettle pond?) or in the case of Cutler Park's Pickerell Pond the Charles River once carried far more water than it now does and where Cutler is was once a wide section of the river. When the river level dropped the pond was formed like this:

Times \Rightarrow 9-2:00pm
 Meet at \Rightarrow Newton South
 Equipment \Rightarrow Day-pack, boots, water, lunch,
 bug spray, suntan lotion.

Molly Smith 965-1979
 Trip slip #5
 July 7, 1993

DEDHAM MARSH

After orienting our maps and choosing a good route, we will head out to Dedham Marsh. A marsh is a pond that is in the "Temporary Pond + Prairie stage" of Pond Succession. Do you remember the other stages? You will be tested on them. Once (if?) we reach the marsh we will be comparing that environment with others that we have seen such as forests, ponds and rivers. This trip is also a good prelude to Kittery,

Along with observing a marsh environment we will be doing a few water tests. The pH kit measures the acidity of the water. A reading of less than 7 means the water is acidic, greater than 7 means basic. What are some liquids that are acidic or basic? The level of acidity of a body of water tells us many things:

- ① what types of plants and animals can live there.
- ② the acidity of the local rain-fall, and,
- ③ whether the body of water is "healthy."

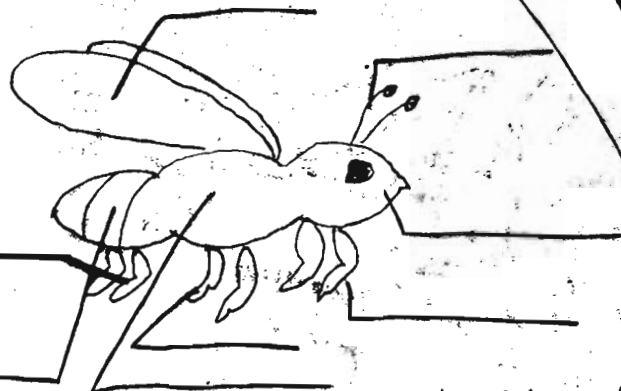
Acid Rain is a big problem today, so we need to check our lakes to be sure they are healthy.

What is the most common identified plant at ESP?
GRASS!

However, when walking across a lawn or park you could be tramping on many different types of "grasses." It could be Bermuda grass, or crab grass, or many other types. It is also possible that it isn't even grass at all. It could be a reed, rush or sedge. One way to distinguish these from grass and also from each other is with this rhyme:

Sedges have edges, reeds+rushes are round

QUIZ OF THE DAY: answer + bring on trip.
 THE INSECT!



Label with these terms { middle legs, hind legs, front legs, head, thorax, abdomen, wings, antennae }

which is a Salt Marsh.

What do you think the differences will be between salt + fresh water marshes?

marshes

TRIPSLIP #3

WEDNESDAY JULY 3, 1991

9AM ~ 2PM

ANNA DOHERTY (965-3815)

FIELD KIT

(boots, pack, LUNCH, WATER, first aid kit, notebook, pencils, knife, raingear, boot laces)

EQUIPMENT NEEDED

SUN TAN Lotion and Bug Repellent are always a good idea, too.

destination - DEDHAM MARSH



Today is yet another wonderful opportunity to put your map and compass skills to work!

Dedham Marsh is located on the borders of Newton, Needham and Dedham, and it is not hard to find, but in this hot weather, it is always nice to find the quickest route.

KEY TOPICS: POND SUCCESSION
WATER CYCLES

HOW DO YOU KNOW IF A POND IS HEALTHY OR NOT??

QUESTIONS to think about:

- What is a marsh? a pond?
- What is a floodplain?
- What kinds of animals live in this environment?

WHAT IS D.O.?

SOME THINGS TO REMEMBER

- Reeds + Rushes are Round
- Grasses are flat
- Sedges have edges

WHAT IS PH?

- 2. Know what poison ivy looks like. It is shiny green, with 3 tapering leaves.

POND SUCCESSION

- pioneer/bare bottom stage
- submerged vegetation
- emerging vegetation
- temporary pond/prairie
- climax stage

CAN YOU DIFFERENTIATE BETWEEN FERN S?

DO YOU KNOW THE PART OF AN INSECT?

WHAT IS THE RELATIONSHIP BETWEEN DEDHAM MARSH AND THE CHARLES RIVER?

HAVE YOU EVER PLAYED THE GAME PLATS? DO YOU WANT TO

CUTLER PARK

CATTAILS

TRIPS LIP # 5

LEADER: Pam Mahoney (527-5831)

EQUIPMENT: Field Kit

BUG SPRAY

I SPY AN ENVI-SCI student!

YUM - here they come!

TIMES: 9 AM - 2 PM

DATE: July 17, 1992

Cutler Park, otherwise known as Dedham Marsh, is a large MDC reservation on the borders of Dedham, Needham, and Newton. The marsh provides a great place to learn about SUCCESSION! ☺, because it is comprised of marsh, pond, river, forest.



MARSH



POND



FOREST ← happy envi-sci student!



RIVER

DOES ANYONE KNOW ABOUT THE PH SCALE?

(Hint: acids and bases) - if this doesn't make sense, DON'T WORRY - that's why we're here!

We will be doing water testing today - yeah! BE SURE TO BRING NOTEBOOKS AND PENCILS TO RECORD THE RESULTS. (You need pencils so that the writing won't smudge)

Does anyone know what an ESKER is? No, it's not a flower or any type of plant. In fact, an esker is a GEOLOGICAL FORMATION! AN ESKER IS A LONG, LINEAR RIDGE OF SAND OR GRAVEL FORMED BY A FLOWING STREAM IN OR UNDER A GLACIER!

Does anyone know the difference between a MARSH, a FOREST?

Cutler Park

or

Dedham Marsh

Date - July 6, 1992

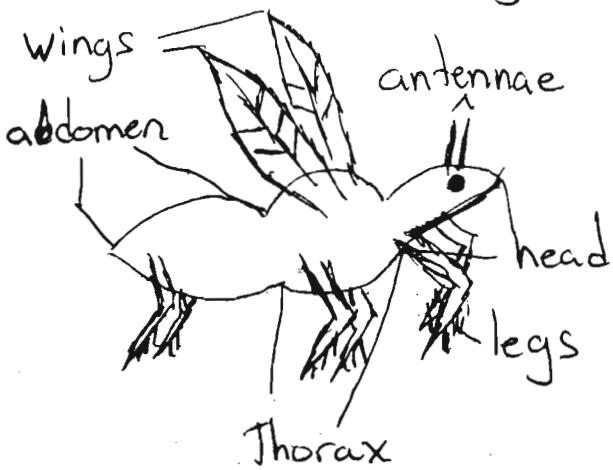
Leaders - Gordon - 244-9304

Pam - 527-5831

Place - Newton south

Time - 9:00 - 2:00

Equipment: Lunch, water,
field kit, boots and Bug repellent.



An insect (really it is)

Pond Succession

First stage: This is the pioneer stage where the pond sandy bottom with a few fish.

Second stage: This is submerged vegetation where decayed material begins to build up on the bottom of the pond.

This is not the end of Pond succession, so I want you to think about what may come later and tell me!

Cutler park is an MDC reservation on the border of Dedham, Needham and Newton. Cutler park is a good example of pond succession and we will talk about what stage the marsh is in. We will also discuss how to tell the difference between reeds, grasses and sedges. Here's an easy saying to remember them!

- Reeds and Rushes are round -
- grasses are flat -
- and sedges have edges -

Some Questions

1. How might a forest and marsh differ?
2. What species of animals might inhabit both of these areas? why?



Time 9-2:00

meet at Newton South

Equipment list

- Day pack
- Boots
- Water
- Lunch
- Bug spray
- Sun block

CUTLER PARK

Peter Montague

969-4196

Kathy Thorp

527-3681

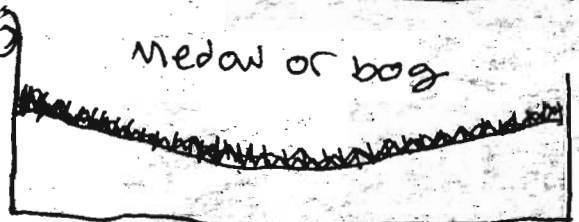
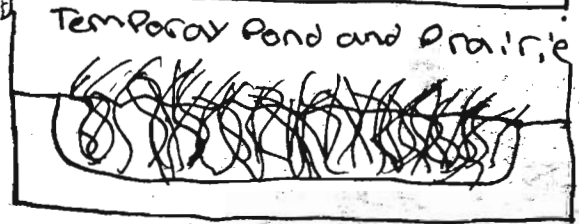
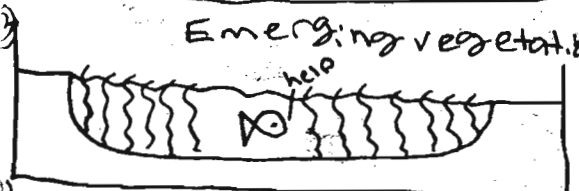
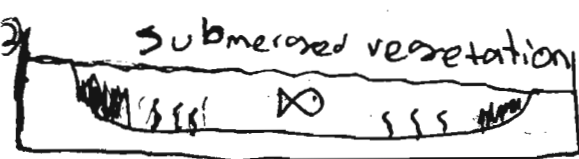
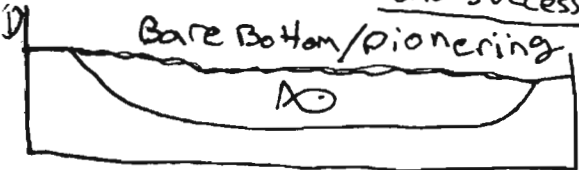
Trip #3
July 6

Cutler Park is a marsh like area on the border of Newton, Needham, and Dedham. First we will orient our maps and you will find a route to the Park. Then we will hike to the Park.

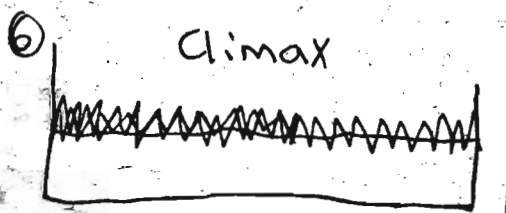
Do you know the different stages in Pond and forest succession? No. Good because we are going to make you learn them.

The different stages of Pond Succession are
Bare bottom/pioneering
Submerged vegetation
Emerging vegetation
Temporary Pond and Prairie
A meadow or bog
Climax

Pond succession



The stages of forest succession are
Pioneering
Mid-stage
Climax stage
after the trees in this stage die forest succession starts over again.



FUN FACTS

Did you know that Acid rain is killing off the spotted salamander.

CUTLER PARK

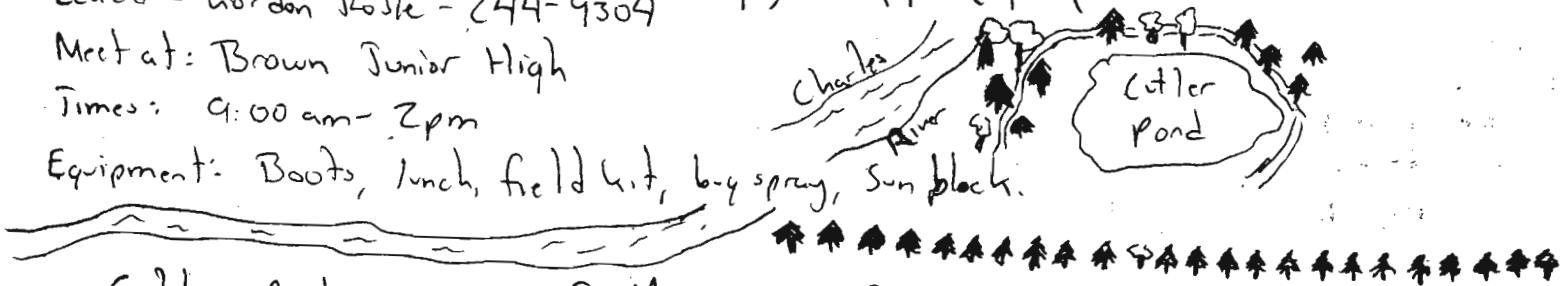
Gordon Roble
Tripslip #3
July 6, 1995

Leader - Gordon Roble - 244-9304

Meet at: Brown Junior High

Times: 9:00 am - 2pm

Equipment: Boots, lunch, field kit, b-g spray, Sun block.



Cutler Park is one of the most fascinating trips we go on, so you folks certainly are lucky devils. As you can see from the oh-so accurate picture above Cutler Park involves a river environment and a pond environment. We can see the difference between these two environments and see if we can measure the effect pollution has on each one. We will also be able to see the stages of pond succession and whether or not eutrophication (the speeding up of pond succession, we'll talk more about it) is present in both the pond and river.

Cutler park is also a marsh. Holy terrestrial Biomes Batman, how can one place be so many things. Well Robin, we're going to look at that. The thing about a marsh is that it is very different from the forest which surrounds it. The plant life is very unique and fortunately for us, this is a preview to cutting tomorrow as well all the different types grasses, reeds and rushes. I'll teach you a mnemonic to remember the differences.

Of course we'll be reviewing (or learning) the all-important pond and forest succession. Bare-bottom - submerged vegetation - emerging vegetation - temporary pond and prairie - meadow - pioneer forest - midstage - climax stage. Think about what could happen once a forest hits climax stage - can it keep going. Also think about why certain trees only grow in one stage or another. Hmm, wonder if it could do with the soil quality (Hint: it does, each stage prepares the land for the next stage.) Isn't nature really smart in the way it does things?

Leader: Jenny Casavant

TRIPSLIP # 3

July 3, 1997

Times: 9 AM - 2 PM

Cutler Park AKA DEDHAM MARSH

EQUIPMENT: Backpack, WATER, lunch, boots, Field Kit (notebook, pencils, first aid kit, extra boot laces, raingear, sunscreen, BUG SPRAY)

Cutler Park is a marshy area and pond located on the borders of Newton, Needham, and Dedham. Also, the Charles River runs through it. Being that there is both a marsh and a pond, we can see **Pond Succession** and **Forest Succession** in action. Succession is a series of orderly changes in a pond or forest. What are the stages of pond and forest succession?

Pond Succession

Forest Succession

Bare Bottom: No fish and few plants

Pioneer: water loving trees

Submerged Vegetation: More plants, sm. fish

Midstage: bigger trees

Emerging Vegetation: Plants break surface, lots o fish

Climax: few ground plants, evergreens

Temporary Pond and Prarie: Pond filled in/marsh/bog

Dying Stage: everything dies(duh)

Get psyched to check out the wetland environment because wetlands have some of the most biodiverse ecosystems in the world; meaning that they're able to support lots of diverse plants and animals. Unfortunately, wetlands are also becoming very endangered because of us evil humans, well, we're not all evil. Why is this important? Why are wetlands so important?

****DON'T FORGET BUG SPRAY, YOU'LL NEED IT-BUGS LIKE MARSHES!!*******

Cutler Park

Tripslip #3

The leaders will be :

That wacky kid named Allan T. (969-4057)

That happy kid named Dan T. (527-2763)

Equipment: Your field kit, boots, your lunch and some smelly bug spray.

Time: (9:00-2:00)

Starting Location: Newton South

Congratulations, you have been selected to for a mission. This mission is to go where very few have gone before. That's right, you're going to go into a little place that we like to call Cutler Park. In this area we will be learning and doing many things.

The first objective of our mission will be to observe Pond Succession. In order to observe this we will have to sneak up on the pond. They are very shy and will not perform Succession unless they think they're alone. Before we go out into the field, you must be briefed on the five stages of Pond Succession.

Stage 1 Pioneer- In this stage the ponds bottom is mostly sandy. There is little to no life in the pond.

Stage 2 Submerged Vegetation- This is just what it sounds like. The first plants are begin to grow. These plants do not break through the surface of the water. Also in this stage there are small fish.

Stage 3 Emerging Vegetation- In this stage larger plants begin to plant through the water. Plants such as cattails begin to appear. In this stage is where you will find the largest fish.

Stage 4 Marsh- The plants will grow in faster from the edge and will begin to fill the center of the pond.

Stage 5 Bog- Trees are beginning to grow. Humus will also fill the bottom. Sometimes this stage is called the quacking bog stage because the ground is not solid yet and it shakes.

So now that you know these stages I have a question to ask. Why does this happen? If you come on this mission I am sure that we will find out answer. This Tripslip will explode in Five seconds. Wait a minute that's another Tripslip. Sorry.

CUTLER PARK

CATALAS

TRIPSUP #5

LEADER: Pam Mahoney (527-5831)

EQUIPMENT: FIELD KIT

BUG SPRAY

I spy an envi-sci student!

YUM - here they come!

TIMES: 9AM - 2PM

DATE: July 17, 1992

Cutler Park, otherwise known as Dedham Marsh, is a large MDC reservation on the borders of Dedham, Needham, and Newton. The marsh provides a great place to learn about SUCCESSION! 😊, because it is comprised of Marsh, pond, river, forest.



MARSH



POND



FOREST ← happy envi-sci student!



RIVER

DOES ANYONE KNOW ABOUT THE PH SCALE?

(Hint: acids and bases) - if this doesn't make sense, DON'T WORRY - that's why we're here!

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Does anyone know the difference between a MARSH, a FOREST?

CUTLER

10-11
July 6, 1998

Leader - Gordon Rulle - 244-9304

Meet at: Brown Junior High

Times: 9:00 am - 2pm

Equipment: Boots, lunch, field kit, bug spray, Sun blocks.



Cutler Park is one of the most fascinating trips we go on, so you folks certainly are lucky devils. As you can see from the oh-so-accurate picture above Cutler Park involves a river environment and a pond environment. We can see the difference between these two environments and see if we can measure the effect pollution has on each one. We will also be able to see the stages of pond succession and whether or not eutrophication (the speeding up of pond succession, will talk more about it) is present in both the pond and river.

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Trip slip #3
July 6, 1994

CUTLER PARK



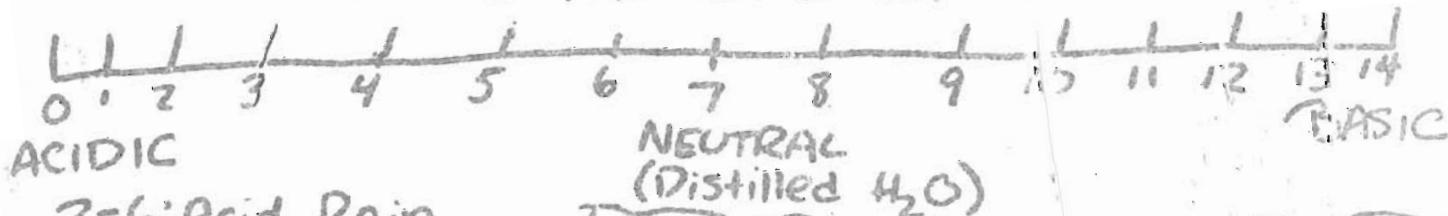
LEADERS:
Kathy Thorp 527-3681
Peter Montague 969-4196



EQUIPMENT: Day pack, boots, water, knife, bug spray

Again today we'll be using our map skills to find our way over to the park/marsh. It's a buggy place so don't forget the bug spray.

We're going to take along a water test to find out what the pH/acidity of the water is. You use a scale to determine how acidic or basic the water is:



2-6: Acid Rain
5-10: Safe for fish
2: Lemon Juice
12: Bleach

Acid Rain affects: Fish, our drinking water, plants, and even stone.

→ How can we solve this problem?
We'll discuss the solutions today.

A wetland doesn't really have a definition.

They have 2 common things in common

though, the soil is periodically or always saturated with H₂O and they contain plants that

Site: CUTLER PARK or
DEDHAM MARSH

lots of stuff!

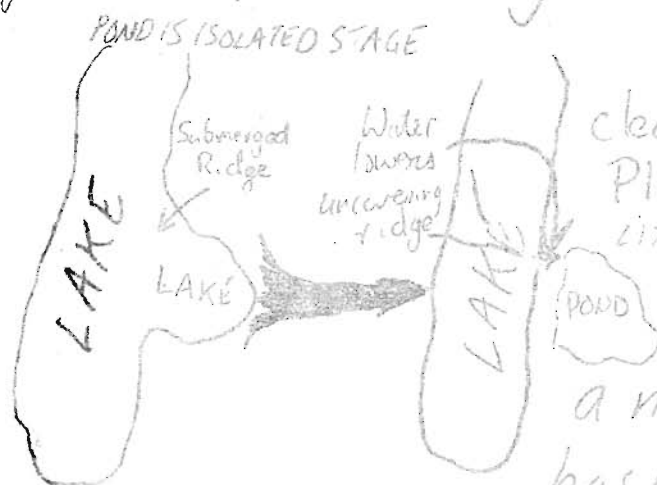
Cutler Park, from the point of environmental diversity and interesting points of interest, ~~and~~ is one of our best trips. One thing we will see on our trip is a great example of the contrast between marsh and forest environments. Some things to think about:

* What are the differences between marsh & forest?

* What plant & animal species inhabit which areas? Why?

* What contrasts, comparisons, or hypothesis can you draw from your observations?

In addition to a great example of the contrast between marsh & forest environments, Cutler Park provides many examples of POND SUCCESSION. Succession is a process by which one environment is changed by natural processes into another. There are many different types of Succession. In Pond Succession first from a large body of water, a lake for example, a pond is formed. This happens when the water level of the lake lowers leaving small isolated packets of water.



The newly created pond has a sandy bottom clean of vegetation. This is called the PIONEER STAGE. This stage is rarely found in nature.

After a few years the pond enters a new stage after the decayed material has built up the bottom to the point that

~~the submerged vegetation stage.~~ aquatic vegetation can survive this is the submerged vegetation stage.

Another stage occurs when the vegetation is able to

TRIP SLIP #2
 Tuesday July 8
 Steve Marcus (332-2948)
 as your leader,
 HIKE TO
 Dedham Marsh
 Cutler Park
 9am - 3pm
 bring lunch wear boots
 Look for Cutler Park on our Newton top. We'll walk from NSHS down Abington St. + across the Charles. Be sure to bring all your gear and maps of Newton. Also some copies of Pond Life from our library



We'll see what happens to a floodplain and natural drainage when parking lots and buildings are put up.
 We'll do a triangulation with our compasses. Bring a vial, we'll take soil and water samples for testing.
 The walk to Dedham Marsh has some interesting outcrops to search for minerals in. Bring your rock hammers!



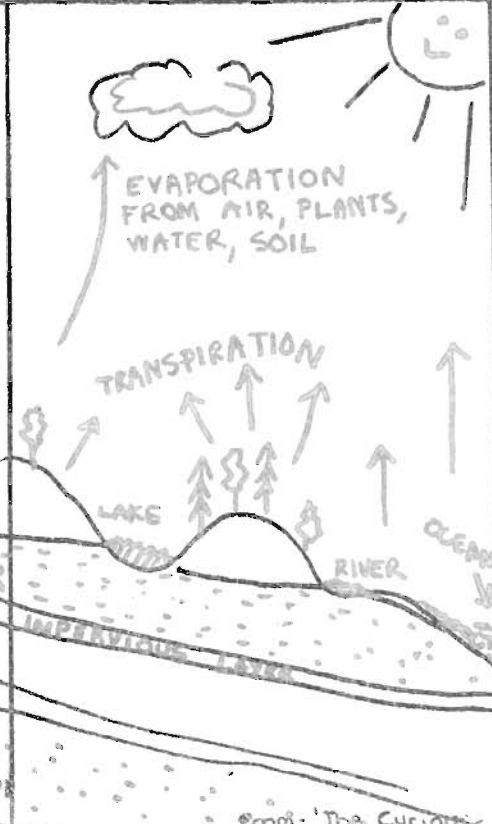
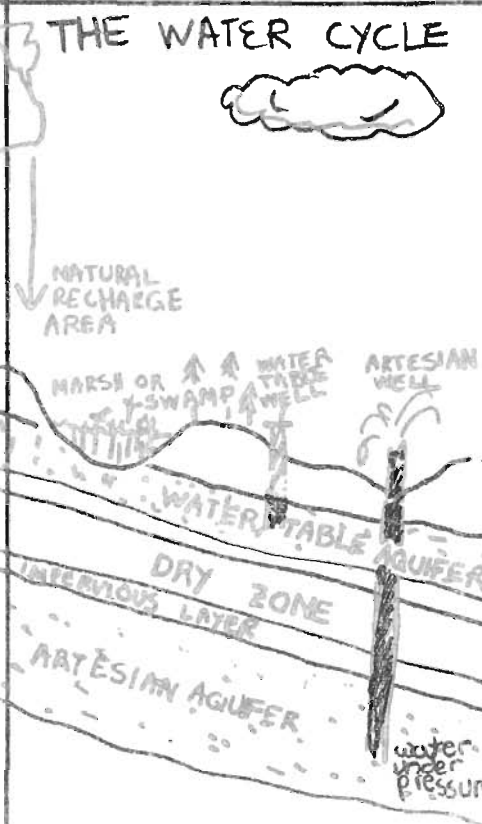
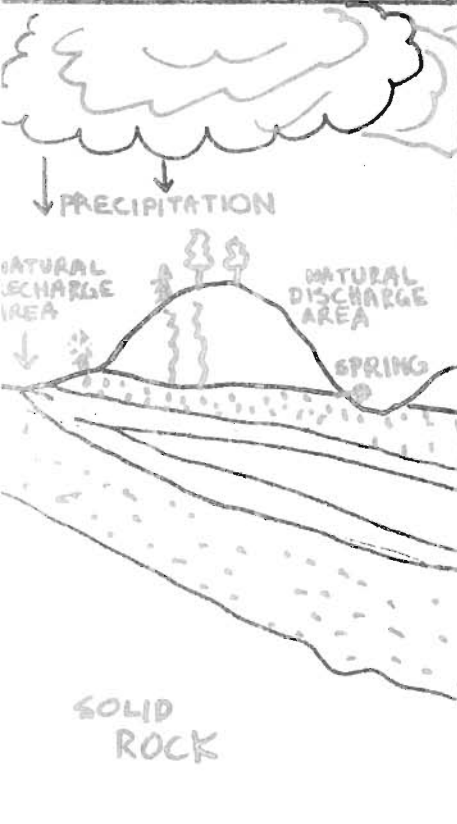
MALE REDWING
2

pH is the measure of the concentration of hydrogen ions. It is measured on a scale of 1 to 14. Pure H₂O is at 7. Most ponds + lakes around here are closer to 6, that is slightly acid. As a body of water ages, it becomes more acid. Eutrophication increases the acidity. Fish can only survive in a small range, from 5 (some-what acid) to 9 (alkaline)



FEMALE REDWING
3

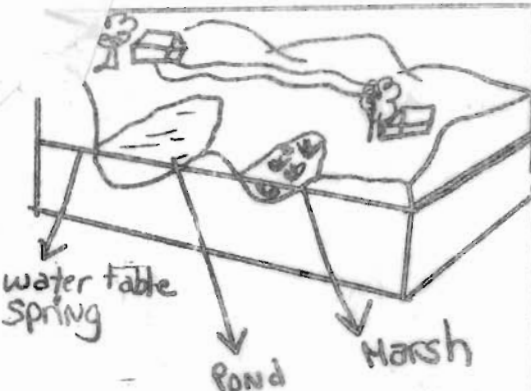
SOME DEFINITIONS TO GO WITH THE WATER CYCLE CHART
 TRANSPIRATION - The movement of water from within the leaves of plants into the air.
 AQUIFER - the beds of sand, gravel, or rock that store and move ground water.



GROUND WATER - water that is stored underground.
 WATER TABLE - the top of the ground water supply. The water table is not always level. It has ups + downs just as the land has hills + valleys.

From 'The Curious'

TRIP # 2



water table
Spring
Pond
Marsh

TRIP # 2
F. McManus
July 9, 1974

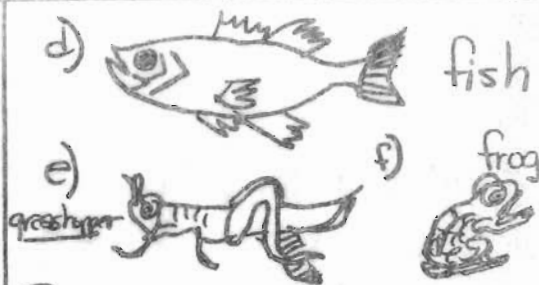
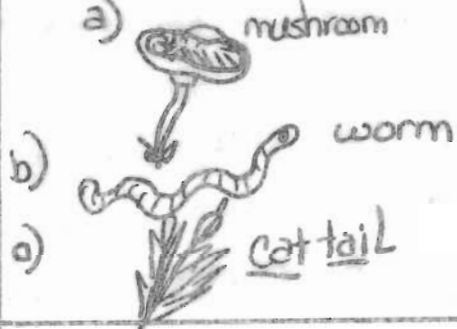
We're going to **Dedham MARSH** to answer these questions:

① How is a marsh different from a pond?

② Can a lake become a marsh? If so, how long do you think it would take?

③ What does pond succession mean?

④ There are stages to pond succession - During what stage - stages might you find -



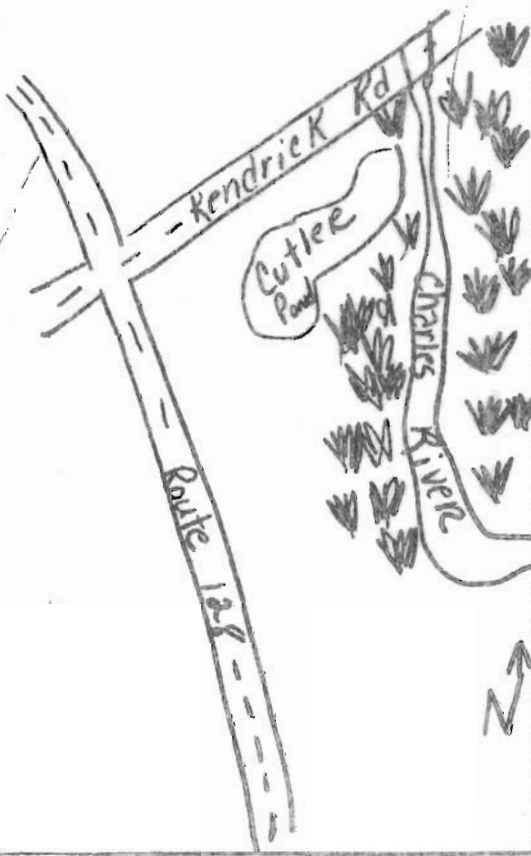
⑤ Can you explain why these things appear or disappear at various times?

⑥ How can man affect a marsh?

⑦ Are there signs of this at Dedham Marsh?

(BRING BASIC EQUIPMENT)

MAP - Dedham Marsh



Floyd
McManus'
group

WEDNESDAY JULY 3, 1991

9AM - 2PM

ANNA DOHERTY (965-3815)

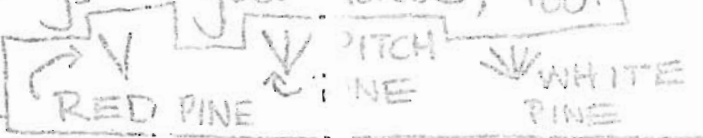
FIELD KIT

(boots, pack, LUNCH, WATER, first aid kit, notebook, pencils, knife, raingear, boot laces)

SUN TAN Lotion and Bug Repellent are always a good idea, too.

EQUIPMENT NEEDED

destination - DEDHAM MARSH



Today is yet another wonderful opportunity to put your map and compass skills to work. Dedham Marsh is located on the borders of Newton, Needham and Dedham, and it is not hard to find, but in this hot weather, it is always nice to find the quickest route.

KEY TOPICS: POND SUCCESSION

WATER CYCLES

HOW DO YOU KNOW IF A POND IS HEALTHY OR NOT??

POND SUCCESSION:

- 1. pioneer / bare bottom stage
- 2. submerged vegetation "
- 3. emergent vegetation "
- 4. temperate dry pond/prairie "
- 5. climax stage

CAN YOU DIFFERENTIATE BETWEEN THESE STAGES?

WHAT IS THE RELATIONSHIP BETWEEN DEDHAM MARSH AND THE CHARLES RIVER?

HAVE YOU EVER PLAYED THE GAME?

DO YOU KNOW THE PARTS OF AN INSECT?

QUESTIONS to think about:

- What is a marsh? a pond?
- What is a floodplain?
- What kinds of animals live in this environment?

WHAT IS I.O.?

SOME THINGS TO REMEMBER:

- 1. Reeds + Rushes are Round
- 2. Know what rat poison ivy looks like. It is shiny green, with long leaves.
- 3. Grasses are flat
- 4. Sedges have edges
- 5. WHAT IS pH?
- 6. 3 tapes