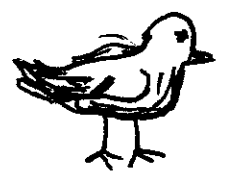


Bird walk



Time: 6-8:30 am

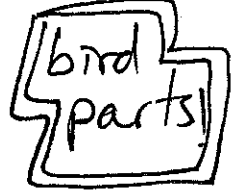
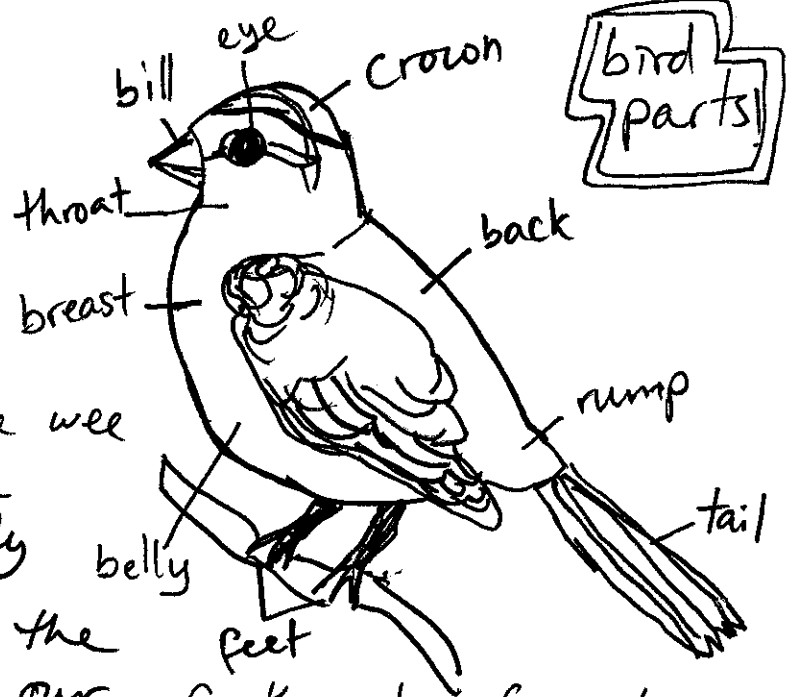
Where: Brown Middle School

Leaders:

Lyuda Kovalchuk
617-558-5567
Jeff Huenemoerder
617-610-5566

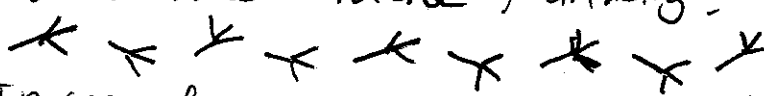
What to bring: water, hiking boots, a snack if you want, rain gear, binoculars if you have them, a bird-ID book if you have one, 1st aid, **SMICKERS!**

Make sure to get enough sleep tonight, because tomorrow we'll be heading out of Brown pretty early! What's the reason behind strange timing? Well, many birds like to wake up in the wee hours of the morning because that is when their food (mostly insects) is most active, and because they want to avoid the hot midday sun. Many of our ~~birds~~ aren't around later in the day, so the early morning is our best chance to get a good look at them.



Questions of the Day:

- How are bird bones different from human bones?
- What are the 3 main types of feathers that birds have?
- What was Zidane thinking?



which one is out of place??

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 Mass Department of Public Health and must be licensed by the City of Newton Health Dept.

THE BIRDWALK

TIME: 6-8:30AM

LEADERS:
 JONATHAN RINNAY 617-645-1379
 JEFF HUENEMOERDER 617-332-9506

EQUIPMENT:
 Field kit, H₂O, Hiking Boots,
 A light snack, a good night's
 sleep, field guide or book on
 birds (if you have one),
 binoculars (again, if you have 'em)

BIRD PARTS

use these terms when identifying birds tomorrow

what do you think each of these bill shapes is good for?

▷
—
⌒
⌒

The first thing I'm sure you're asking yourself is: 'by golly-gosh-darn, why are these crazy leaders making me wake up so early?' Well, it's quite simple really. Many little birds like to avoid the sun, they also feed on the active insects that wake up early too. Since few people are up at this time, it is the perfect time for us to observe them near the marshes around Brown.

FLIGHT FEATHER

THE BARBS ARE TIGHTLY MESHED, FORMING A FIRM STRUCTURE

BODY FEATHER

DOWN FEATHER

FEATHERS

GOOD MORNING! BIRD WALK

be on time!!

5 AM - 9 AM

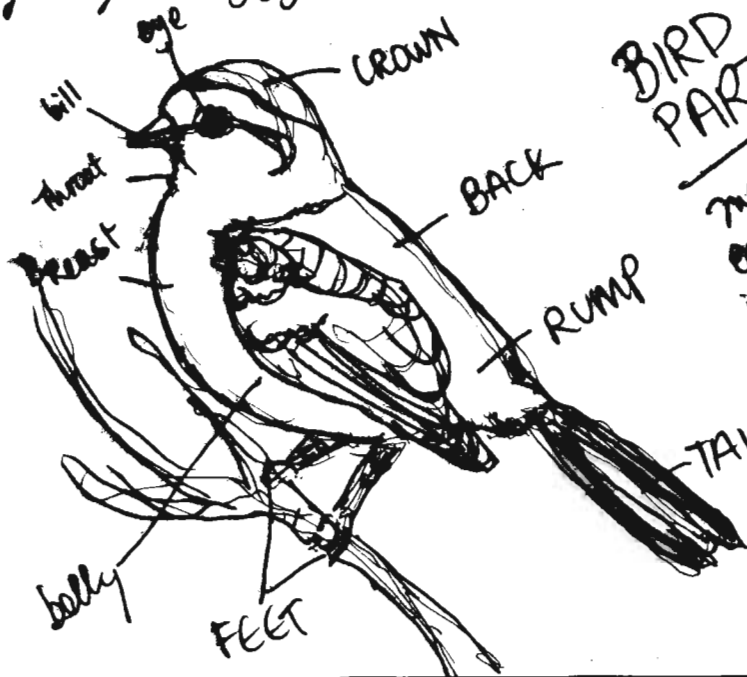
Wendy Gross 965-9821
 The Brand for 527-1195
 EQUIPMENT n Boots,
 "emergency" stuff - 1st aid kit,
 compass etc., (old guides
 come from home, too...),
 field GLASSES or BINOCULARS
 if you have access to either.



WHY so early?

The birds are up, the people are not. This is an ideal time to spot less sociable birds not

seen at later hours...
 Besides Newton South
 looks different this
 early... (or maybe that's
 just your fuzzy vision...)



BIRD PARTS:

make them
 easier to
 identify.

Now
 you can

say,
 "It's throat
 was red, not
 its breast!"

ADAPTATIONS

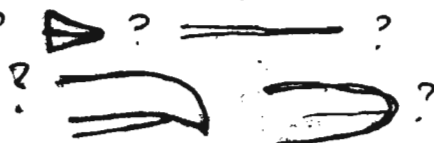
Birds have less predictable adaptations than some other animals...

Originally birds (or whatever you might call them, then...) had a scaly covering, like reptiles. From this developed a covering of FEATHERS each feather has rows of branched barbs which hook together.

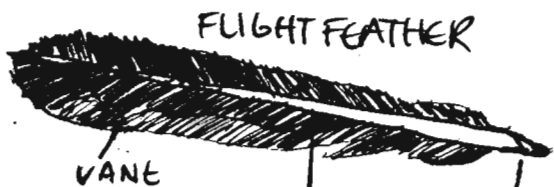
- There are also adaptations of the FEET - these vary with species.
- how might birds' feet vary??
- How CAN ONE tell MALE BIRD from FEMALE?
- HOW ARE BIRD BONES different from ours?

→ what are AIR SACS?

- WHAT DO BIRDSEAT? what difference do BILLS and their shape make? what are these bill shapes good for?



which one is for seeds?
 straining algae? sipping
 nectar? tearing flesh?



FLIGHT FEATHER

VANE

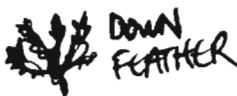
shaft

QUILL

on the long flight feathers, the barbs are tightly meshed, forming a FIRM structure.



BODY FEATHER



DOWN FEATHER

Other than PHYSICAL adaptations,
 BIRD "PERSONALITY"
 and
 SOCIAL STRUCTURE
 are fascinating. what can you observe about this?



Birdwalk

Leader: Gail Stanton

Phone: 964-5857

Time: 6 AM - 9 AM

Equipment: Field Kit

No Lunch, Boots, Breakfast

(Bagels and Doughnuts and
Sash) Any Bird books you
own, field kit, Binoculars.

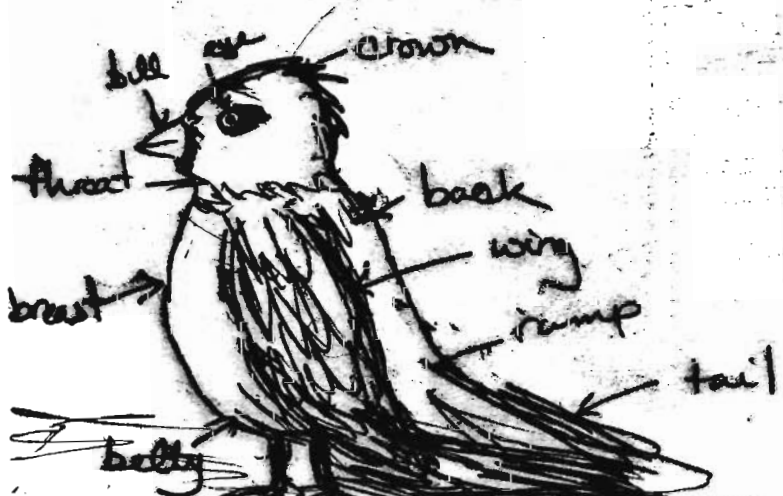


Functions of Bill adaptations

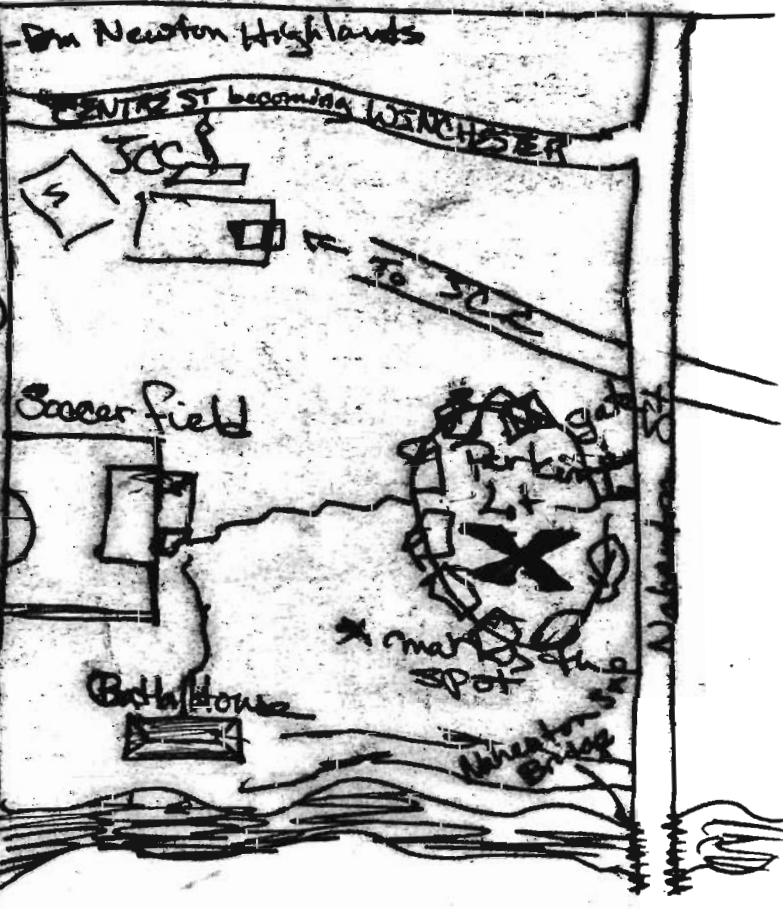
- > conical - seed eaters
- >> hummingbirds - reaching into flowers
- >>> flycatching - flying bugs
- >>>> duckbill - straining algae
- >>>>> bald eagle bill - tearing flesh
- >>>>>> Sand Piper - earthbound insects

Objectives:

We will be looking at birds (big ol' surprises). We will be touring around Noritate (Nahanton) Park. The reason we will be leaving so wonderfully early this morning is because we have to see the birds at a time when people normally wouldn't be bothering them.



feathers: provide warmth and aid in flight
- How does feather color relate to a birds habits + habitat?



Birdwalk



Date: Wed. July 10, 2002

Meet @: Brown Middle School

TIMES: 6-8:30 AM

Equipment: Field Kit, H₂O, boots, binoculars (if you want), bug spray, a snack if you want, bird books if you've got 'em

Leaders: Amelia "6 is too early" Runyan

617-244-8836

Joey "6 is too late" Backer

617.

Gabe "6 is just right" Yospin

617-969-3966



It's time to get pumped because tomorrow we're all gonna get up super-

early, put on our wednesday bird-watchin' best, and go identify some of our fine feathered friends! Why so early you ask? Because most birds come out early in the morning to find food etc. and don't come out later. That's why we have to catch them so early! We will see native species of birds around Brown but we will also see invasive species, like sparrows, which came here from Jolly Old England and bred like crazy, that's why there are sooooo many.

Cool Bird Stuff:

- The feather part of a feather forms the flat smooth surface by locking together like velcro
- smallest bird: Bee Hummingbird, it's only 2 inches long and weighs 1/10 of an ounce
- largest bird: Ostrich, it can grow to 8ft. and weigh up to 300 pounds!
- Birds are descended from reptiles

See here:

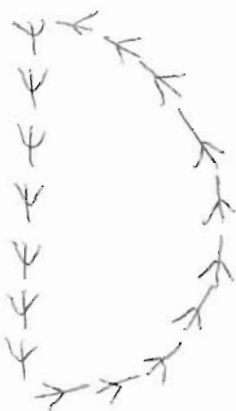
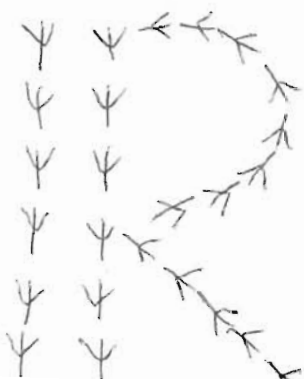
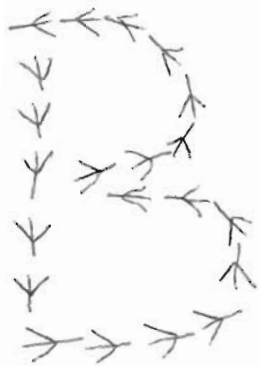


So get psyched and get excited for getting up early and peepin' some birds.

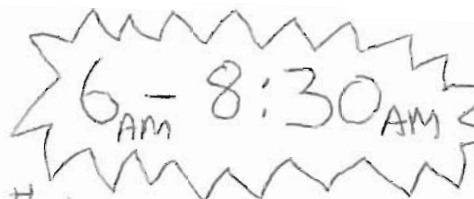
Cool!!!

Trip slip #5

Date: July 11, Wednesday 2K1



TIME:



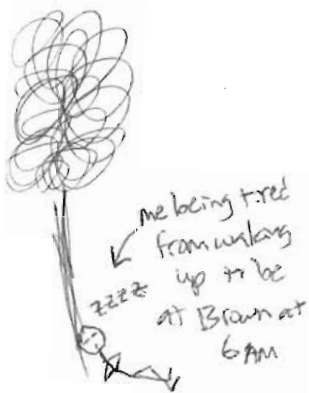
Yes, that says 6AM!

Location: Brown Middle School

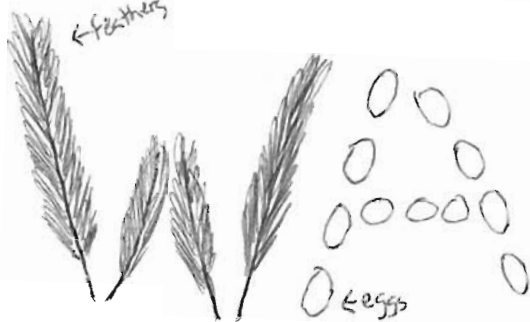
Leaders: Sarina (969-3966)

Jeff (332-3617)

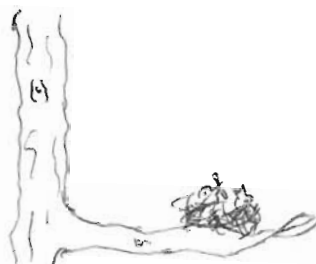
Equipment: field kit, boots, water, snack, bug spray, binoculars and bird books if you have them



← feathers



← eggs



(I ran out of designs)

I don't know about you, but my favorite thing to do at 6 in the morning is not sleeping, but lookin' for some birds with Envi-Sci. We're lucky enough to be close to a vast wetland area that is by Newton South. Wetlands are heavens for many birds, especially in the morning when they are lookin' for some scrumptious insects and what not. We will try to identify as many birds as possible by seeing how they look and also listening to the sound of their calls. I've seen a many birds in my years at Envi-Sci, so hopefully we can see some more!



↑ I swear, this is a bird

Some cool bird info:

- The smallest bird is the Bee Hummingbird which is only 2 inches long and weighs 1/10th of an ounce
 - The largest is the ostrich, which can grow to 8 ft. and weigh up to 300 pounds!
 - Birds are descendents from reptiles
 - The Arctic Turn flies over 35,000 miles a year!
- ↑ a bird, not a plane. It also flies by itself, not sitting in coach class, either

Where: Brown Middle School

WHEN: 6:00 in the AM
7/8/05 - 8:30 AM

Who: Joey (617-969-0288)
Lyda (617-584-2624)
Garhett (617-332-1362)

I'm just so darn pretty...



the Envi-Sci...

Equippo:

Field kit, boots, water, binoculars if you've got 'em, and a book on birds if you are so inclined.

Birdwalk

Trip Slip # 5

Well, it's time to break out the binoculars and embark on the Annual Envi-Sci Birdwalk! And just as the ancient proverb advises - "the early student gets the bird" - we're going to get a jump on the day so we can maximize our sightings of those winged creatures we so reverently call "birds." Yes, that's right; we're meeting at 6:00 in the AM in order to see the birds that aren't as active during the day. Don't forget to brush up on those birdcalls!

- Why are there so many different species of birds in such relatively small niches?
- Why can birds fly and humans can't??

HOW DOES ONE ID. A BIRD IF ONE CANNOT SEE IT VERY CLEARLY?

Well, birdwatchers can recognize species by characteristics like outline; and by their calls;



cc-traa-laa-dippity-doooo

Can't miss THE ENVI-SCI BIRDWALK!



SOME BIRDS WE PROBABLY WILL SEE



NORTHERN CARDINAL
The brightly colored cardinal actually sings all year to protect its turf.



RED-TAILED HAWK
This super recognizable hawk has bright red tail feathers (hence the name).



AMERICAN CROW
Packs of crows often follow their enemy, the hawk, around just to piss them off.

SOME BIRDS WE PROBABLY WON'T SEE



EMU
This razor-clawed giant can't fly and generally sticks to its native habitat: Australia.



ARCHAEOPTERYX
As the first known bird, don't expect to see this demi-dino 150 million yrs. later.



RESPLENDENT QUETZAL
Hee Hee. Look at how putty it is. And it has so many tail feathers. Hee Hee.



Mmmore... sugar...

THE 6-8:30 AM!! #15 BIRDWALK

Brown
M.S

COME

big wing
bird

Leaders: Garhett: 617-332-1362
Joey: 617-969-0288

equipment: boots
fieldkit
H₂O
binoculars (optional)
rain gear



Get P-U-M-P-E-D up! We are going on a
Crazy cool bird walk around Brown middle
School. We will have a bird guide for reference, if
you have any of your own, feel free to bring
them! Bring glasses if you have need them
because we will be searching near and far to
spot all 8,700 diff species of birds!!!
I wish you the best of luck

- G-50

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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.

In case of emergency, your child will be brought to Newton-Wellesley Hosp. 617-243-6000
This program must comply with the regulations of the Mass. Dept. of Public Health and be licensed by the City of Newton Health Dept.

Birdwalk



Trip # 5
7/8/05

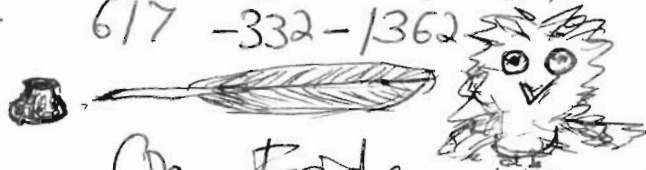
Leaders: Lynda
Kwalehuke
617-584-2624

When: 6-8:30 AM

Joey Backer
617-969-0288
Garrett Solomon
617-332-1362

Where: BMS

What to Bring: boots, water, light snack, notebook + pencil, rangear, 1st aid, binoculars if you happen to have any



On Friday we will gather in the sleepy rays of 6am sunlight to observe that majestic creature: the bird. "Why so early?" you ask. And I answer: Many birds try to avoid the sun and are most active before it gets too hot; also, their food (insects) is easiest to catch in the morning, so that's when they come out. And now, for some diagrams:



Contour feather

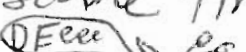
These are stiff, smooth and used for flight



Down feather

Down feathers are very fuzzy and trap lots of air; they help keep birds warm and are located close to the skin

Q How can you identify a bird if you don't see it very clearly? A: Two methods used commonly are to notice the bird's outline and to listen for its call

Did you know that the wood thrush can sing two different notes at the same time? 

THE

Trip slip # 7

Birdwalk

Leaders: Julie: 964-7248
Gabe

@ Brown

equipment: boots
- field kit
- H₂O -
small snack



→ Julie's new species
of a bird; I think!

A pair of binoculars if you have them.

This can be a very exciting trip. We will be walking around Brown, South and Oak Hill, in search of birds. We can also see where different birds tend to hang out. We may find different birds near the marsh by South then over in the fields. We will bring along a bird guide so we can identify any birds that don't look familiar. If you have binoculars, they may be cool to bring so you can get a closer look.

Fun Fact: - There are over 8,700 different species of birds in the world.

So may my creation does exist.

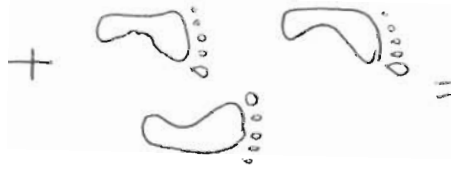
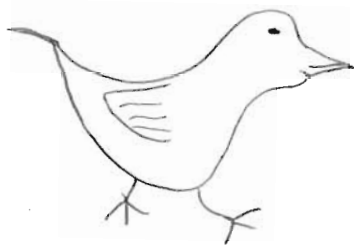
- over 1,000 species of birds are extinct.
- bird feathers are made of keratin which is the same protein found in human hair.

Trip slip # 7

7/12/2000

Times: 6-9

Place: BMS



BIRDWALK (Get it)

Leaders: Gabe Yospin

969-3966

Julie Greenwald

964-7248

Equipment: Field kit, H₂O, perhaps a light snack, perhaps binoculars, a good night's sleep, a burlap sack of feathers for camouflage (~50 lbs)

The classic symbol of freedom - the bird. Today, we're waking up early (so go to sleep early) to track down, observe, and identify some of the hundreds of bird species that make their homes around Brown.

The first thing that you're probably wondering is: "Why do I have to wake up so disgustingly-early-early?!?! Well, little birds like to avoid the hot sun if possible, and since many insects are more active around sunrise, this is the logical time to be getting a balanced breakfast (see quotes below). We'll bring binoculars and bird boots, and see if we can find some cool birds.

Now for some science. Flying is really tough work, so to do it, birds had to evolve some really awesome features.

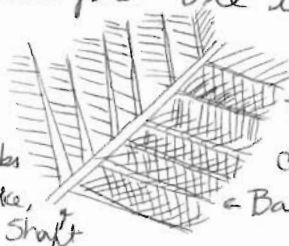
Their feathers are just one example.

All the parts are

very light, and

interlocking

on every stroke.



hollow, so they're

thousands of

catch the air

Barbs pushing the

bird up. This is light, and strong, and feathers would be useless if they weren't both.

Just like their feathers, birds have hollow bones, which makes them much lighter.

Think about this stuff, and talk more tomorrow, bright and early.

A wealth of aviary quotes
[compiled by Gabe "The Enormous Nerd" Yospin]

- The Early Bird catches the worm.

- William Camden

- Don't stand under a bird, or you will get a turd.

- Sarina Yospin

↑
Okay, so I could have come up with more, but they were all really long and boring.

- Gabe

Meeting Place: BMS

Time: 6-8:30

Leaders: Sarina Yospin
(617) 969-3966

Equipment: Field Kit,
H₂O, boots, binoculars
(if you've got 'em)

Date: 7-11-01

AM

Jeff Wong
(617) 332-3617

Trip slip #5

designer feathers, →
similar to those often
worn by famous birds

the
Bird

← bird tracks

Various types
of playground
equip... oops.
Wrong trip slip.

walk

↑ so many beaks, so little time

It's the trip critics
are calling...

"Dazzling!" - Envi Sci Times

"Eye-opening!" - Envi Sci Journal

"Really early" - Envi Sci Weekly

Ever wonder what the BMS area looks like bathed in the day's first rosy rays? Well, now you have the opportunity. But as the saying "The Early bird catches the worm" implies, you will benefit from the early time of the trip by having an easier time catching your breakfast of earthworms. But that doesn't mean we will stop making fun of you for eating them.

Actually, we do the bird walk this early because there are lots of birds out early in the morning that don't come out much when it gets later into the day.

A Preview of
Interesting Birds we
might see:



Red-Tailed Hawk

- what noise does it make?
- how does it fly?
- how can it be identified, speaking feather-wise?



Mourning Dove

- What is its song?
- How does its coloring help it survive?



Black-capped Chickadee

- from its beak size and shape, what do you think it eats
- who put the ram in the ram a lam

... AND SO MUCH MORE!

Questions to Ponder:

- Why are there so many different bird beaks?
- How can birds be so light if they have so many bones and such powerful muscles for flight?
- In what biomes on Earth do birds live?
- What purpose do a bird's tail feathers serve? Which birds cannot fly?



TRIPSLIP #5
 10 July 1990
 BIRDWALK

Leaders: Rachel and Garen
 (332-7372) (332-4015)

Times: 6:00 to 9:00
 (in the morning)

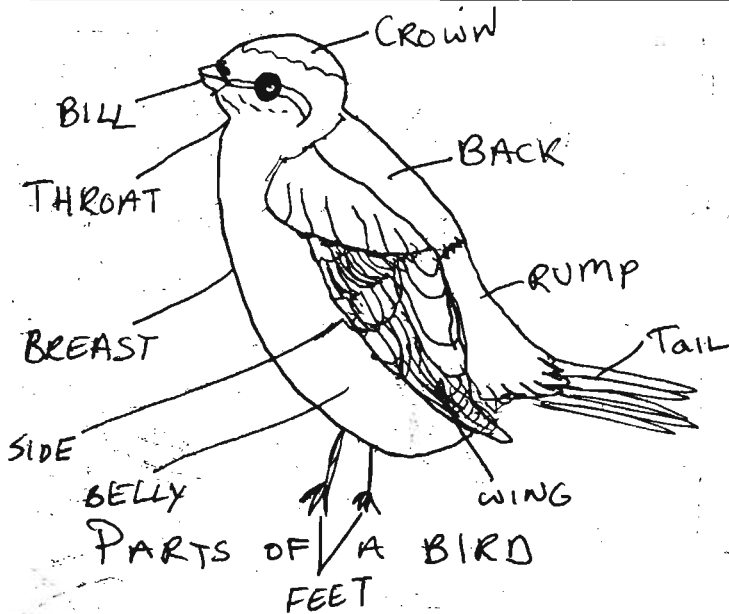
Location: NOUITATE (meet at South-
 well's go from there)

BIRDWALK

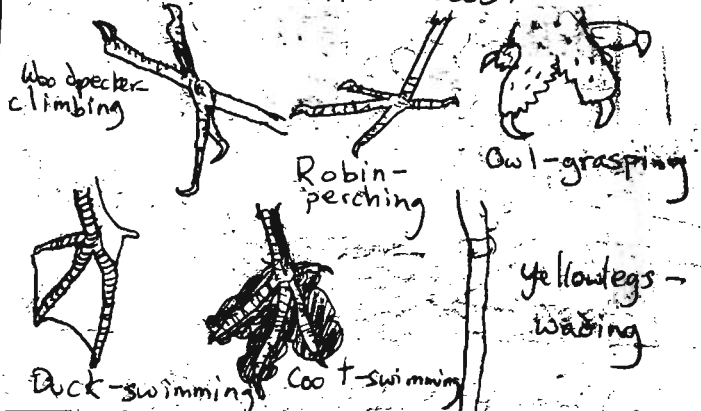
EQUIPMENT: BOOTS
 FIELD KIT
 BREAKFAST

You may also want to bring
 something to sit on and
 binoculars (if you have them)

The first bird known to man is the archaeopteryx (now extinct), which lived ~~65~~ 150 million years ago, and which was both a bird and a reptile. There are now more than 20,000 species of birds, which are grouped into 27 orders. There are 20 orders in North America. These are divided into 75 families, which encompass about 1,500 species.



BIRDS HAVE all adapted to their environments in many ways. In addition to having specialized bills to suit their needs, birds' feet also reflect their environmental needs.



- Average length = 10 inches
- Male birds usually have bright plumage, but females are usually dull in color. Females, however, have the prettier song.
- Birds have light, hollow bones
- Very rapid heartbeat
- Ducks' feathers have oil on them, which is why they stay relatively dry.

