

WEEK ONE

OBSERVATION & NAVIGATION

FIRST IN-CLASS OBSERVATION ASSIGNMENT

THE LONG HOUSE

17. APRIL 2023

PG 1-5

WEEK ONE

HOMEWORK

ONE-HOUR OBSERVATION & SUN MOVEMENTS

GARFIELD ELEMENTARY SCHOOL

23. APRIL 2023

PG 6-10

(I will re trial in the upcoming weeks
as there was not consistent sun)

WEEK TWO

IN CLASS ASSIGNMENT

PG 11-14

MEASURING DISTANCES

WEEK TWO

IN CLASS ASSIGNMENT

P 15 - 18

& FINISH UP HOMEWORK
MEASUREMENT & ESTIMATING HEIGHT

WEEK TWO

IN CLASS ASSIGNMENT

P 19 - 21

& FINISH UP HOMEWORK
MEASUREMENT IN FIELD OBSERVATION

WEEK TWO

HANDOUT WITH ROUGH DATA COLLECTION

ATTACHED TO BACK COVER OF FIELD
JOURNAL

WEEK THREE

PG 22-24

IN CLASS ASSIGNMENT
WILDLIFE OBSERVATION &
IDENTIFICATION

WEEK THREE

pg 25-27

HOMWORK
WILDLIFE & BIODIVERSITY
IDENTIFICATION

WEEK FOUR

• IN CLASS ASSIGNMENT
BIODIVERSITY SKILLS
PT 2

pg 28-31

• BIODIVERSITY SKILLS PT
HOMWORK
MILKISHVANDI PARK

pg 32-35

WEEK ONE



OBSERVATION
&
NAVIGATION

VICTORIA CAMERANO

17. APRIL, 2023

11:18 - 11:50

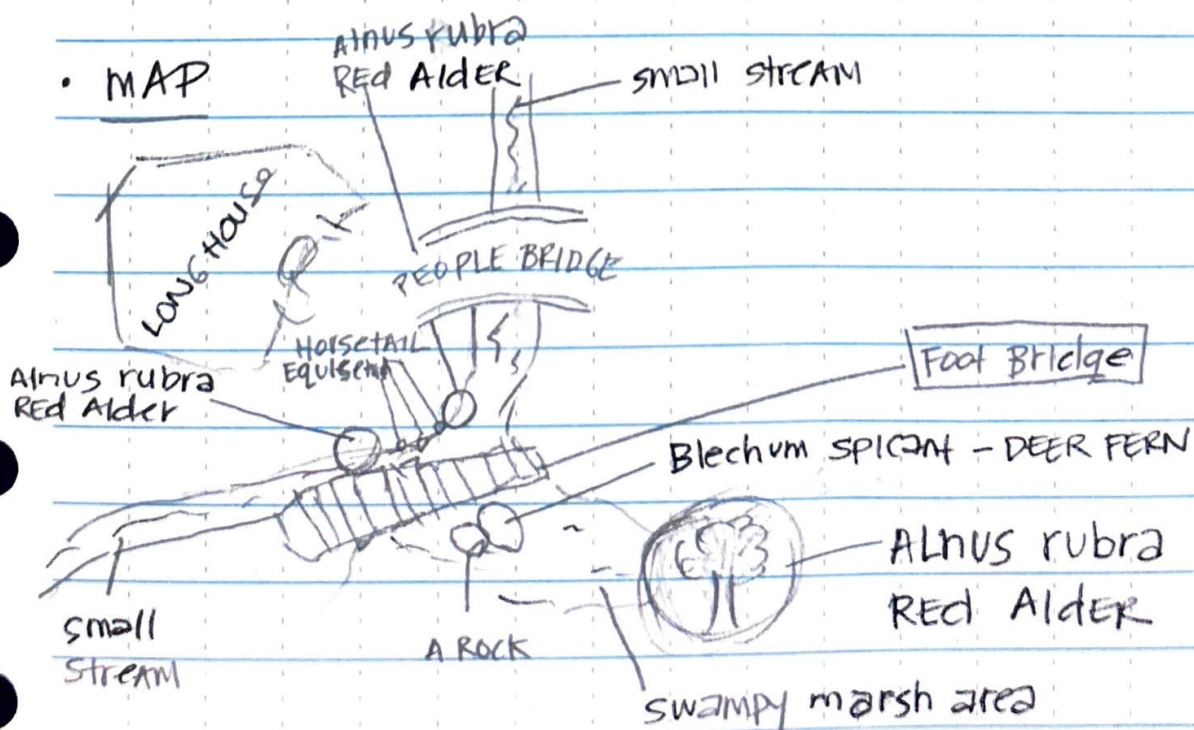
LOCATION

- TO THE NORTHEAST OF THE LONGHOUSE
at the Evergreen State campus there is a small stream, marshy, boggy area with a wooded footbridge. The swampy area is surrounded by a wooded landscape with plants that are indigenous to the Pacific Northwest.

- Longhouse location coordinates

47.072599°

-122.97386°

MAP

• An exploration of the natural areas surrounding Evergreens Longhouse resulted in finding this an area with a stream & boggy marsh. The wetland area maintained a plethora of bio-diversity with *Lysichiton americanum*, *Equisetum telmateia*, *Blechnum Splent*, and *Alnus rubra* being the native plant & tree species that stood out. Full color illustrations of the plants are on the following page.

CLIMATE

TEMPERATURE 83°C / 46.94°F

WIND @ beginning The Beaufort # is 1 (2-5 km/h; 1-3 m/h)
@ end Beaufort # 2-3 (6-11 km/h; 4-7 m/h)
(12-19 km/h; 8-12 m/h)

SKY US CODE #2 - CLOUDY (broken) or overcast

SPECIES

Alnus rubra Red Alder
Blechnum splent DEER FERN
Equisetum telmateia Giant Horsetail
Lysichiton americanum skunk Cabbage

Lysichiton americanum

skunk cabbage

Longhouse - EGSC

17. APRIL 2023



ELEMENTARY

GARFIELD ~~MIDDLE~~ SCHOOL

OLYMPIA WA

47° 02' 58" N 122° 55' 15" W

Cinder

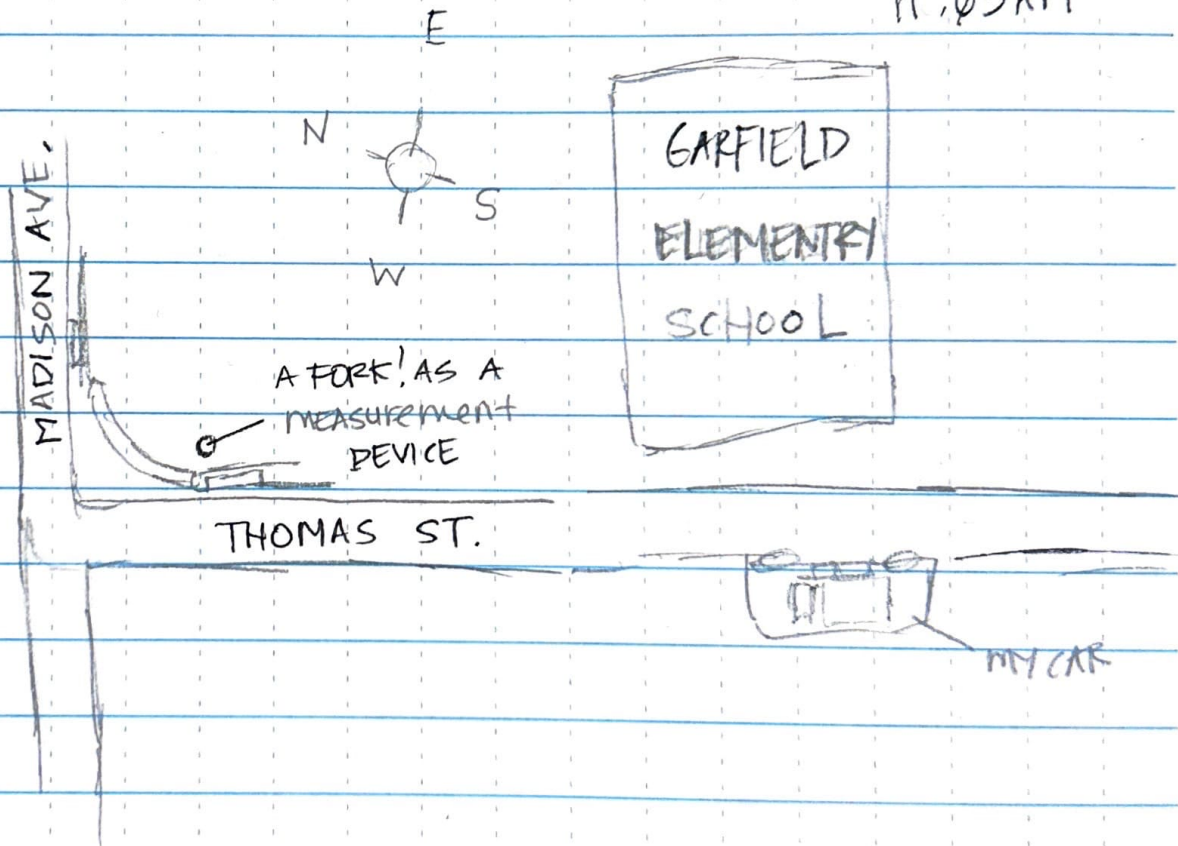
VICTORIA

CAMERANO

23. APRIL. 23

9:48 AM -

11:03 AM



- UPON ARRIVAL at 9:48 AM, THE BEAUFORT NUMBER IS at (0), with no wind, calm sunshine. THE US WEATHER BUREAU CODE HAS A RATING OF (1), with a partly cloudy or variable sky.
- OVER THE COURSE OF THE MEASUREMENT TRIAL period the BEAUFORT number changed to (1) with a wind blowing in. THE US WEATHER BUREAU code changes to (2), with the sky becoming overcast.

(6)

Scale: 1 square =

• I am in an urban environment at a small park / baseball field next to a "Garfield Middle School," in Olympia WA.

ELEMENTARY

• I am using an upside down fork as a measurement device for documenting sun & shadow locations over the duration of one hour, with measurements taken every 15-minutes.

• Additional observations included a group doing Tai chi, as well as several dog walkers & couples drinking coffee.

Over the course of the hour in the baseball field next to Garfield Elementary School, I experienced a change in weather from bright clear and sunny gradually shifting to overcast with a light chill and a breeze. Local humans did tai-chi, walked dogs, drank coffee, & played games with their children.

I placed a fork upside down in the ground at $47^{\circ}02'58''N$ $122^{\circ}55'15''W$. I then measured the marker height, in this case a fork, at 20.25m. Over the next hour I took measurements that are recorded in a chart on the next page.

7 Scale: 1 square =

DATE 23 APRIL 23 LOCATION GARFIELD MIDDLE SCHOOL BATH PARK
 MARKER HEIGHT: 20.25 M

47° 02' 58" N 122° 55' 15" W IN METERS

OBSERVATION #	TIME INTERVAL	TIME OF DAY (24HR)	TEMP. (IND. UNITS)	SHADOW LENGTH (M)	COMPASS BEARING OF SHADOW (FROM THE BASE OF THE MARKER)
1	0	9:48	9.4°C / 49°F	30M	S 180°
2	15	10:03	9.4°C / 49°F	SUN DISAPPEARED	S 190°
3	15	10:18	9.4°C / 49°F	20.70M	S 180°
4	15	10:33	9.4°C / 49°F	20.42M	S 178°
5	15	10:48	9.4°C / 49°F	NO SUN CLOUD COVER	—
6		11:03	9.4°C / 49°F	NO SUN CLOUD COVER	—

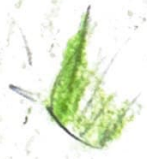
Scale: 1 square =

8



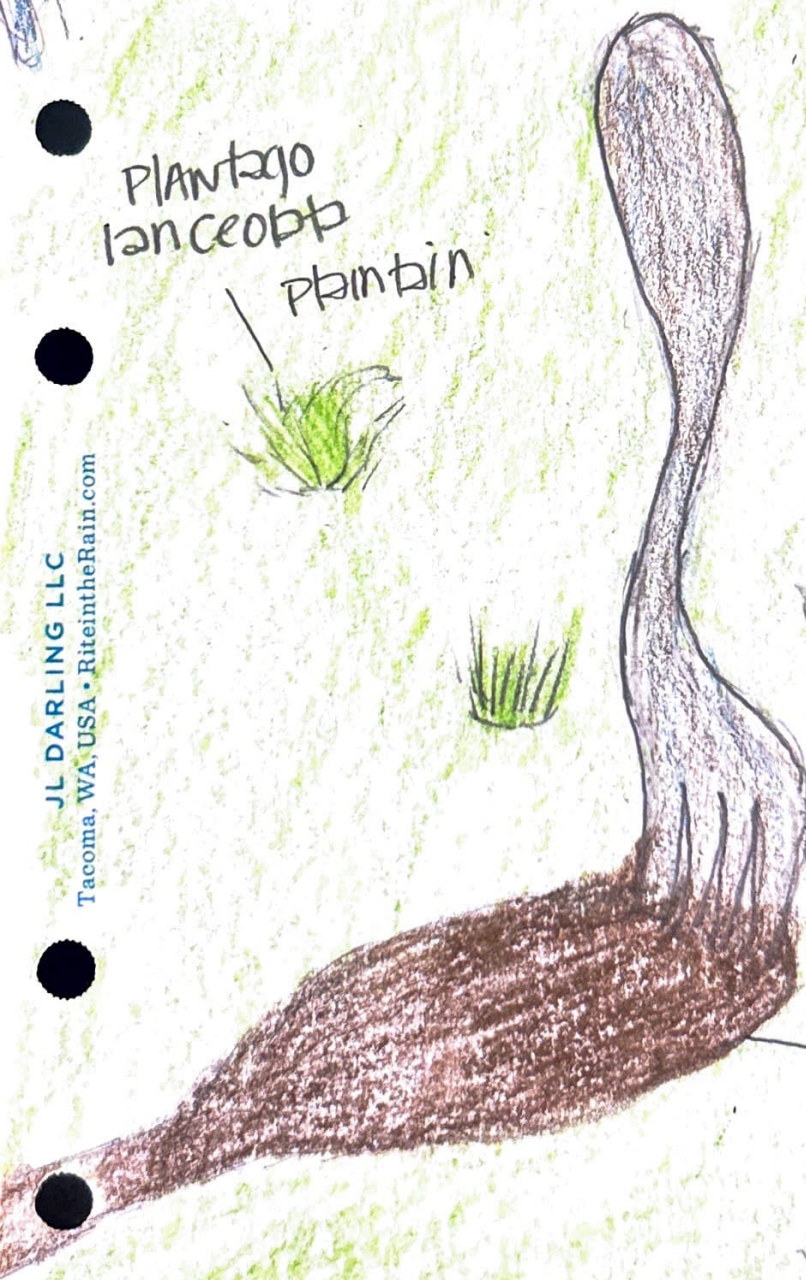
Plantago lanceolata

Plantain



Fork

Shadow of Fork



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DALIS
METAMORPHOSIS ... of shadow (JK) //
GARFIELD ELEMENTARY SCHOOL
- UPSIDE DOWN FORK -

23. APRIL 2023

WEEK TWO

MEASURING
DISTANCES
HEIGHTS
&
SIZES

cinder

V. CAMERANO

24. APRIL, 2023

10:00 - 12:00

IN CLASS ASSIGNMENT

FIELD METHODS IN ENVIRONMENTAL STUDIES

MEASURING DISTANCES

EVERGREEN STATE COLLEGE CAMPUS

COBBLESTONE BRICK WALKWAY

SW OF THE LAB II & CAL BUILDING, THE

CLASS BEGAN TAKING MEASUREMENTS

OF A 50m MEASURING TAPE & THE

INDIVIDUALS CORRESPONDING PACE. THE

CLASS THEN COMPARED AND CONTRASTED

THE DIFFERENCE BETWEEN EACH OTHERS

PACE & THE RESULTING MEASUREMENT.

COORDINATES

47° 04' 18" N

122° 58' 43" W

BEAUFORT NUMBER

: 0

CALM, NO WIND

US WEATHER CODE

: 0

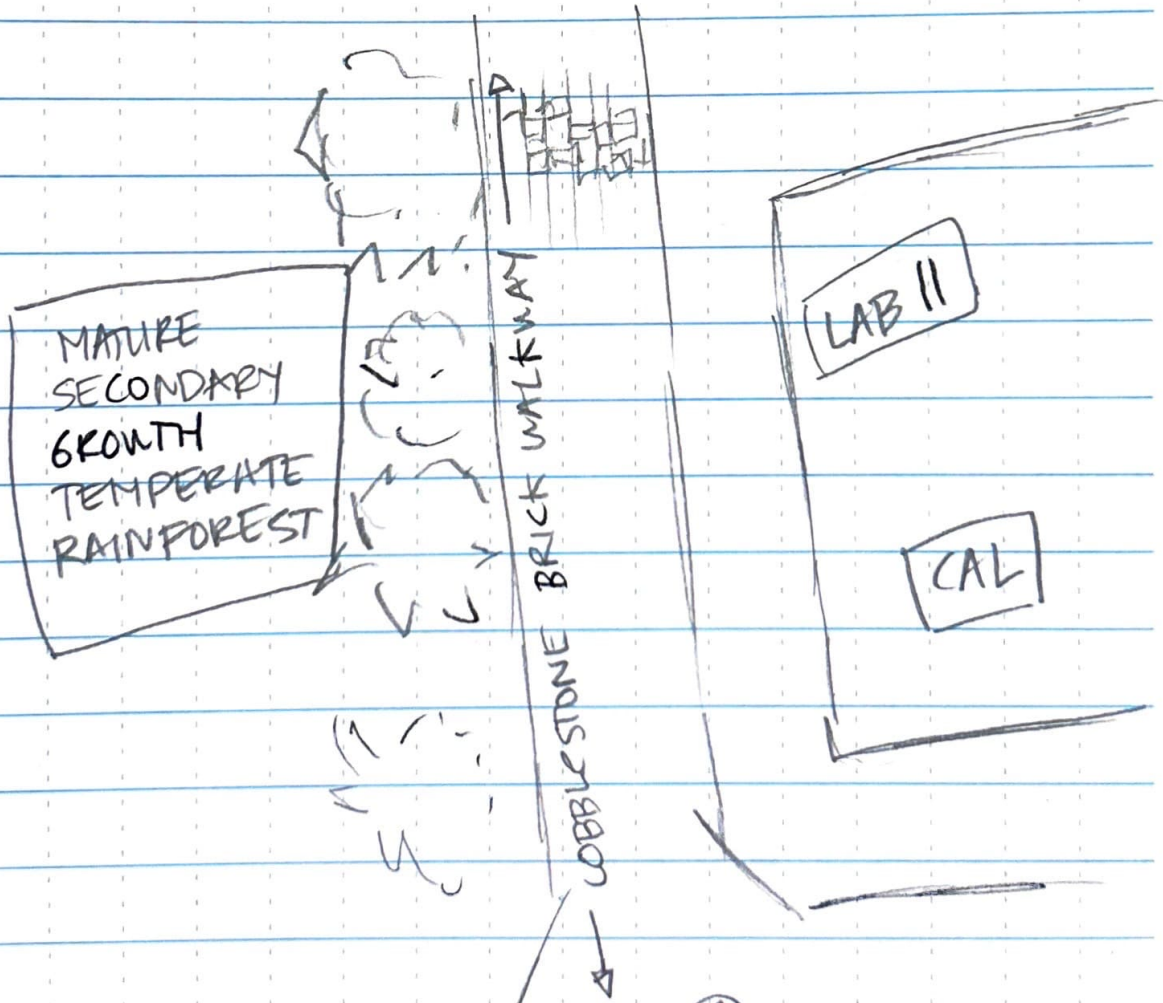
CLEAR, OR FEW CLOUDS

⊛ - coordinates

47° 04' 18" N
122° 58' 43" W

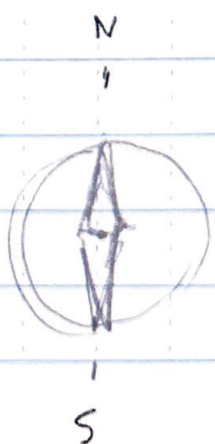
TO THE
LONG HOUSE
↑

EVERGREEN
CAMPUS



12

Scale: 1 square = _____



24. APRIL. 2023

10:30 - 12:00

IN CLASS ASSIGNMENT

Field methods in Environmental Sciences

#2: measuring distances, heights, & sizes.

I. PACE & DISTANCE

- ① DISTANCE MEASURED: 50m
- ② NUMBER OF PACES TO COVER 50m: 39 paces
 $\text{distance} \div \text{pace} = 1.28\text{m}$
 pace distance is 1.28m
- ③ NUMBER OF STEPS TO COVER 50m: 78 steps
 $\text{distance} \div \text{step} = 0.64\text{m}$

TRIAL ONE

Beginning at the paved pathway at the organic farm trail head on Evergreen's campus, the class will be measuring the distance by pace & by meter tape to the gazebo like structure.

A # OF PACES TO COVER THE DISTANCE:
75 PACES

B DISTANCE BASED ON YOUR PACE:
96m

Scale: 1 square =

13

C Actual distance: 90m

TRIAL TWO from walkway to gazebo

A # of paces to cover the distance:
72 paces

B distance based on your pace
92.16m

C ACTUAL DISTANCE: 90m

TRIAL THREE from walkway to gazebo

A # of paces to cover the
distance:
72.5 paces

B distance based on your pace
92.8m

C ACTUAL distance: 90m

Cinder

V. CAMERANO

24. APRIL 2023

1000 - 1200

EVERGREEN CAMPUS MEASUREMENT & ESTIMATING HEIGHT

NESTLED BETWEEN THE SEMINAR IIE
building and the SEMINAR IIC building
THE CLASS did a series of estimations
& measurements of vertical distances
& correlating angles, as well as
tree diameter & circumference.

THE CLASS became familiar with using
hand & chest measurements to estimate
distance, width, & length.

COORDINATES

$47^{\circ} 04' 22''$ N

$122^{\circ} 58' 28''$ W

BEAUFORT NUMBER

: \emptyset CALM, no wind

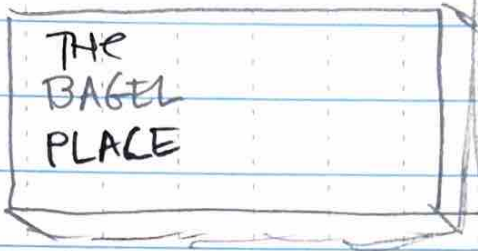
US WEATHER CODE

: \emptyset CLEAR, or few clouds

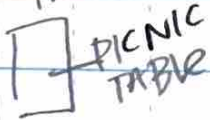
EVERGREEN CAMPUS

47° 04' 22" N

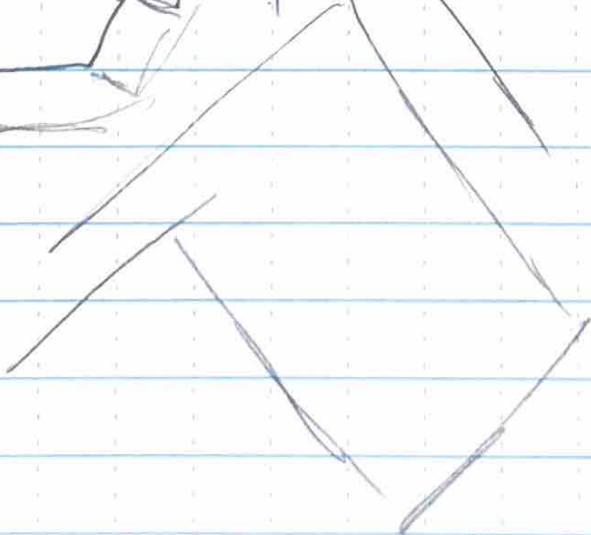
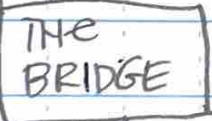
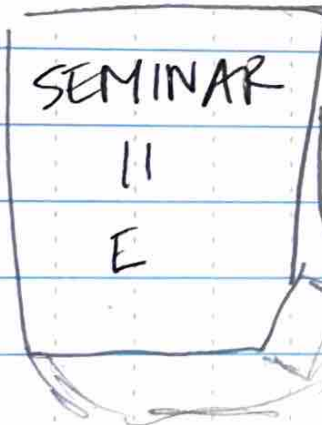
122° 58' 27" W



Trees



coordinates



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cinder

VICTORIA (AMERANO)

24. APRIL 2023

1030 - 12:00

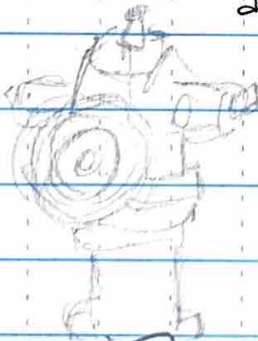
II MEASURING & ESTIMATING HEIGHT

① BREAKST HEIGHT - measure personal DBH 1.37m

② ONE & TWO METERS -
one meter (3.3 feet)
two meters (6.6 feet)

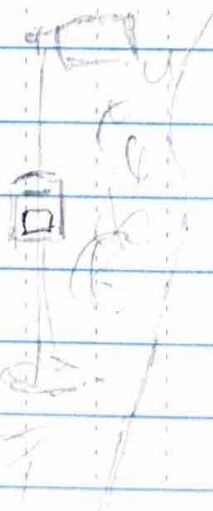
do personal measurement

A NAME & MEASURE AN OBJECT - one meter after guessing.



FIRE HYDRANT next to LABII building
est. 1.5m
Actual. 0.9m

B NAME & MEASURE AN OBJECT - two meters after guessing.



DOG / PETS SIGHN SW of LABII building.
est: 2m
Actual: 2.15m

3 TALKER OBJECTS → tree heights

A. ESTIMATE USING your 1 & 2 meter estimates 30 m

B TRIANGLE & MEASURING TAPE:
30 paces for 38 m

C CLINOMETER MEASUREMENTS: 35°

$$\text{height} = \text{distance (m)} \times \text{TAN}(\text{angle})$$
$$38\text{m} \times \text{TAN}(35^\circ) =$$
$$26.6\text{ m height}$$

D we did not perform a stick measurement in class, but I read the tree measurement handout.

53°F / 13°C

cinder

V. CAMERANO

24 APRIL 2023

13:00

IV

IN CLASS ASSIGNMENT

MEASUREMENT IN WILDLIFE OBSERVATION

EVERGREEN CAMPUS

MATURE SECONDARY GROWTH

TEMPERATE RAINFOREST

LOCATED JUST OFF ONE OF THE FOOT TRAILS IN EVERGREEN CAMPUS' TEMPERATE RAINFOREST, I FOUND A NICELY SITUATED OBSERVATION AREA NEXT TO TWO DOWNED MOTHER LOGS.

OVER THE COURSE OF AN HOUR I OBSERVED A *Troglodytes pacificus* (PACIFIC WREN) ON A SMALL TREE CLOSE BY. THE WREN SANG THE ENTIRE TIME IT WAS PERCHED ON THE BRANCH AND I COULD HEAR SIMILAR SONGS OFF IN THE DISTANCE.

I ALSO OBSERVED A BUMBLEBEE, THOUGH AN INSECT, IT IS IN THE ANIMALIA KINGDOM.

EVERGREEN CAMPUS

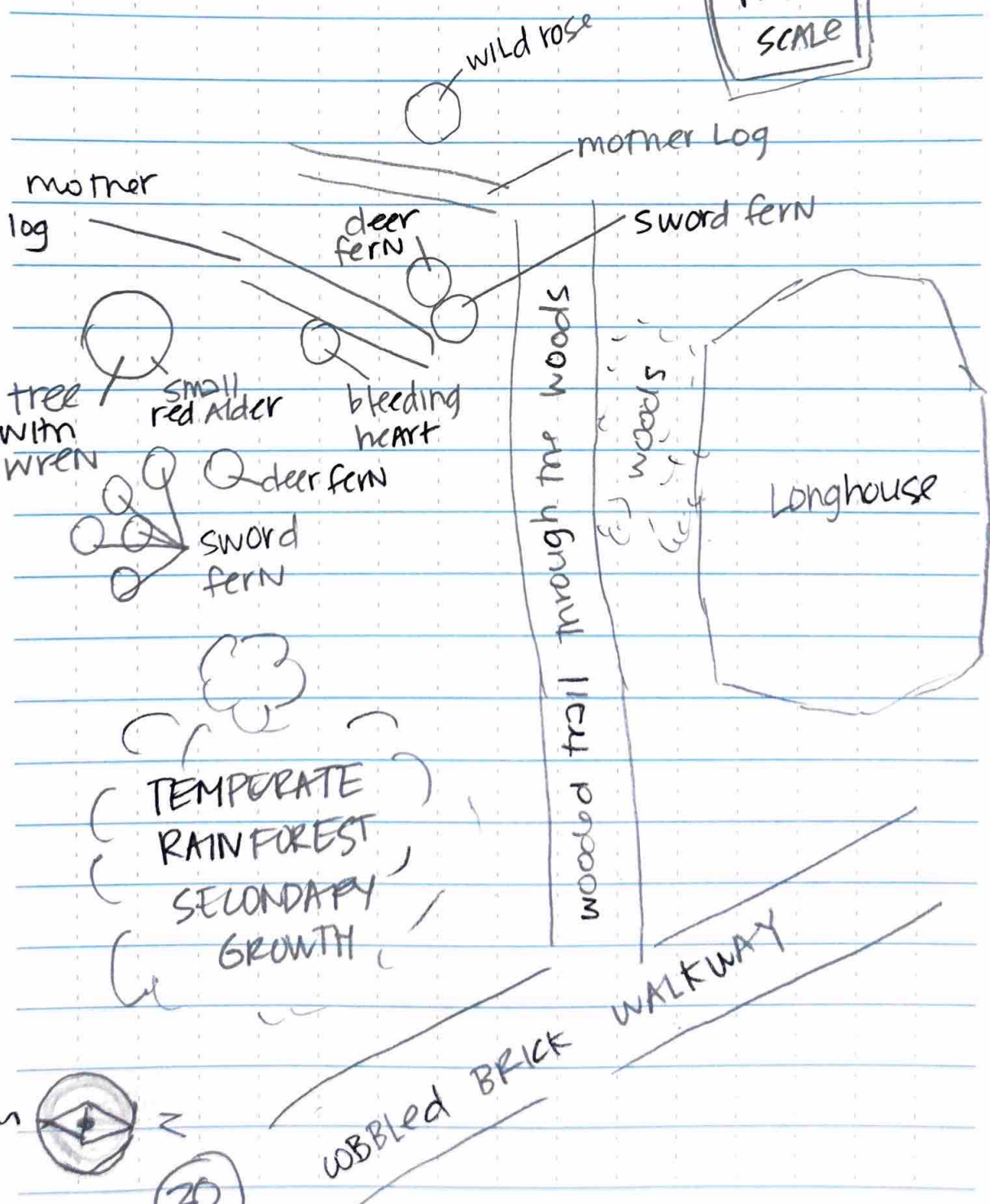
Coordinates 47° 04' 15" N

122° 58' 53" W

BEAUFORT #: ∅, no wind

US WEATHER CODE: ∅, clear

NOT TO SCALE



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TEMPERATE
RAINFORREST
SECONDARY
GROWTH

Scale: 1 square =

Troglodytes pacificus

Pacific Wren
24. APRIL. 2023
EVERGREEN
CAMPUS



estimation:
8cm wide
7cm tail

WEEK THREE

BIODIVERSITY
&
WILDLIFE
IDENTIFICATION

CINDER

VICTORIA CAMERANO

1. MAY 2023

10:00 - 12:00

12°C

cloudy

IN CLASS ASSIGNMENT
WILDLIFE OBSERVATION
WILDLIF SCOUTING
EVERGREEN CAMPAUS
BEACH LOOP

BEAUFORT
NUMBER
Ø
NO WIND

START: coordinates

47° 04' 44" N

122° 58' 52" W

TRAIL HEAD

US
WEATHER
CODE
1
PARTLY CLOUDY
OR VARIABLE
SKY

Beach coordinates

47° 05' 04" N

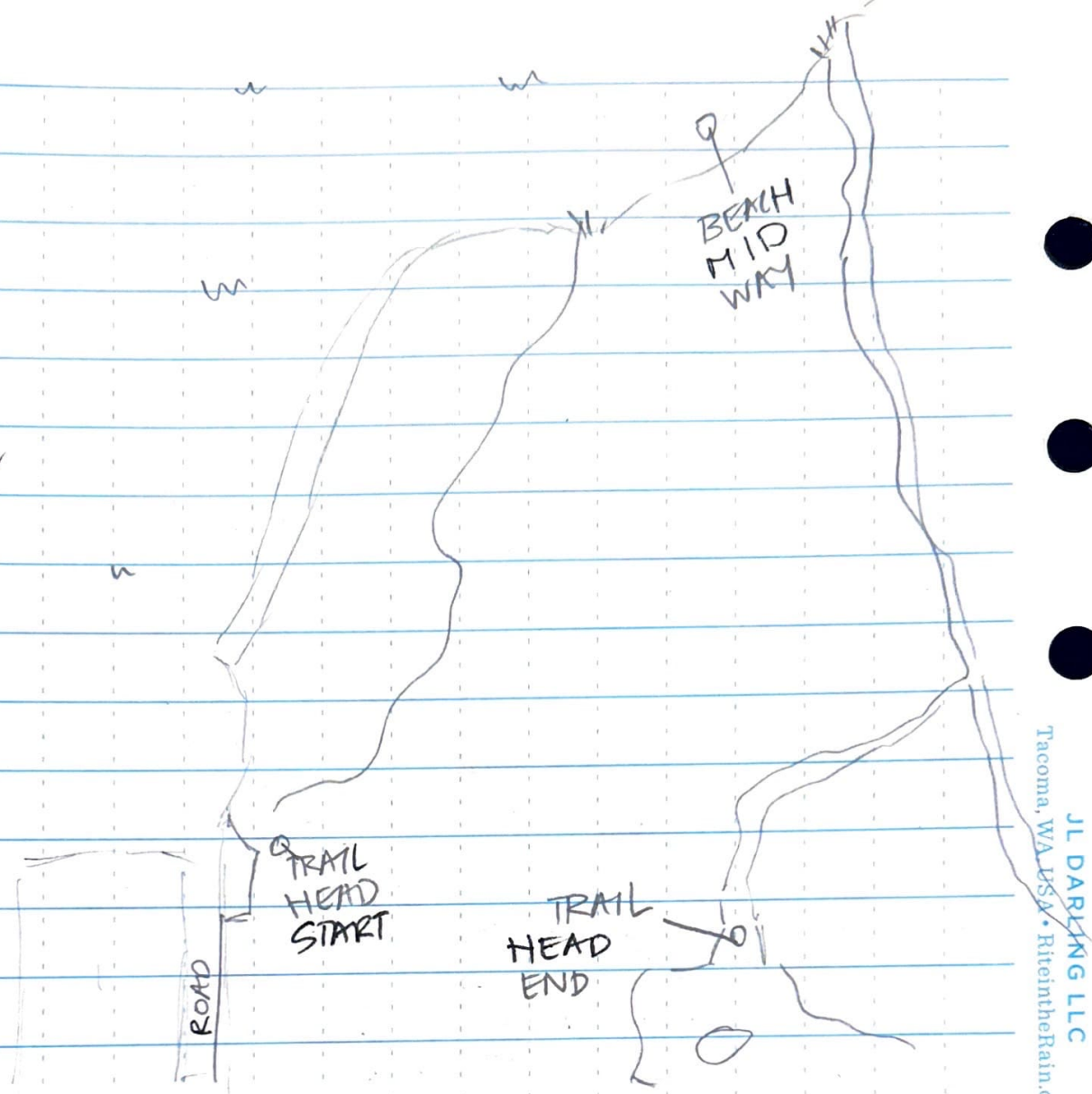
122° 58' 39" W

END :

TRAIL HEAD COORDINATES

47° 04' 36" N

122° 58' 40" W



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HABITAT

SECOND GROWTH TEMPERATE RAINFOREST

PNW BEACHES - rocky

SNAGS & LOGS ON BEACH

CLAMS, MUSCLES, BARNACLES

BRIMY

SMELLS LIKE SEALIFE & SHELLFISH

SANDY BUT WITH ROCKY, MOSSY TEXTURE



EVERGREEN

BEACH

LOOP

23

Scale: 1 square = _____