And now the....

QUESTION #10 THE NATS 101-GC **TREE-RING EXTRAVAGANZA!!**





Question #10 will get you started on:

Assignment I-3 (the in-class part)

The Bristlecone Pine (BCP) Activity



Skeleton Plotting your own core by hand, then

Pattern-Matching with the other students in your group to make a Site Composite, then

Crossdating with the Master Skeleton Plot (assigning Calendar dates to your own plot)



Your "paper" cores are from real BRISTLECONE PINE SITES

(you'll learn more about them on Thursday)

5 SITES IN WESTERN U.S.

All are Bristlecone Pine sites <u>SITE NAME</u> (abrev) CORE ID

Sheep Mt (SHP)	(
Campito Mt (CAM)								
Methuselah Walk	E							
(MWK)								
Almagre Mt (ALM)								
Hermit Lake (HER)	A							

Map on p 129



SKELETON PLOTTING YOUR OWN CORE

Cartoon Cores from Assignment I-2:



PROJECT'S PAPER CORES:

Earlywood & latewood NOT shown

INSTEAD: each narrow ring you should plot is <u>colored in</u> for you

Frost ring = marked by xxxxx



WHAT ARE FROST RINGS?

Permanent wood damage in cells, due to freezing & expansion of intercelluar water, can be useful for pattern matching &

crossdating!

Frost damaged cells in latewood





Produced by a severe freeze occurring DURING the tree's growing season

SETTING UP YOUR SKELETON PLOT GRAPH PAPER:

Important: USE A PENCIL not a pen!

FROST

RING

Christine Hallman

Starting Flag for Ring 0 (first ring)

Ending Flag for LAST *complete* (not jagged) RING in core -- plot arrow when <u>finished</u>, not all cores have 60 rings

Pattern Matching



Pattern Matching

Student A's plot

Student B's plot



Making a Site Composite



SITE COMPOSITE = all individual plots from your site patternmatched & taped together

Crossdating with the Master

Goal: To assign calendar dates to each student's skeleton plot

Site Skeleton Plot Masters (with dates marked & narrowest rings shown by long lines)

1700	1705	1710	1715	1720	1725	1730	1735	1740	1745	1750	1755	1760	1765	1770
-0.0	methn	iew _r cri	n(1700	-1997)		i.	-	1.1	i.		. İ.	, i		1
neL.	i da diana			a an bha an		a estrator							e en la ca	
0.0		1	11		-	3		t	R				i.	6
-0.6	e in a star a star									e a se dese se		1.		
-0.4	i sa sika 🖡	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	त्र के दिवास है। प्र	9 8 7 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		a Pierre	1	ng nganara		त्र प्रकेशना ज	- Inderson	1.1	- Cherry	na a da sea a a
			2	6				5 2		•				1
-0.2	e e stare t	en pla	e e de co	and all		1		en balant	12 1 24	• • • a = • •	a da a		• En la sa	and set of the
	1 ! 1	1 1	111	1	1					1 2 1				

Methuselah Walk

Also on the Skeleton Plot Masters you will find "FROST RING YEARS" marked!



FR = frost ring year

TODAY – QUESTION #10:

(1) Plot the skeleton plot for the core given to you. (Please DO NOT WRITE ON THE CORE ITSELF)

(2) Be sure your name & the CORE ID # is on your GRAPH PAPER when your PLOT is done.

(3) Pattern match with other students – you'll tape together the plots into ateh SITE COMPOSITE when match is made

<u>TODAY – (cont.)</u>

(4) After the SITE COMPOSITE IS TAPED TOGETHER – Assign beginning and ending CALENDAR DATES to each plot in the Composite

(5) When everyone's plot is dated, carefully take apart the composite and LEAVE you CORE & your PLOT in your GROUP FOLDER for Question #10 validation. – (Be sure your name and Core ID is on your PLOT.