
MACROFOSSIL STRATIGRAPHY OF PERCH LAKE FROM 14,000 YEARS AGO TO PRESENT

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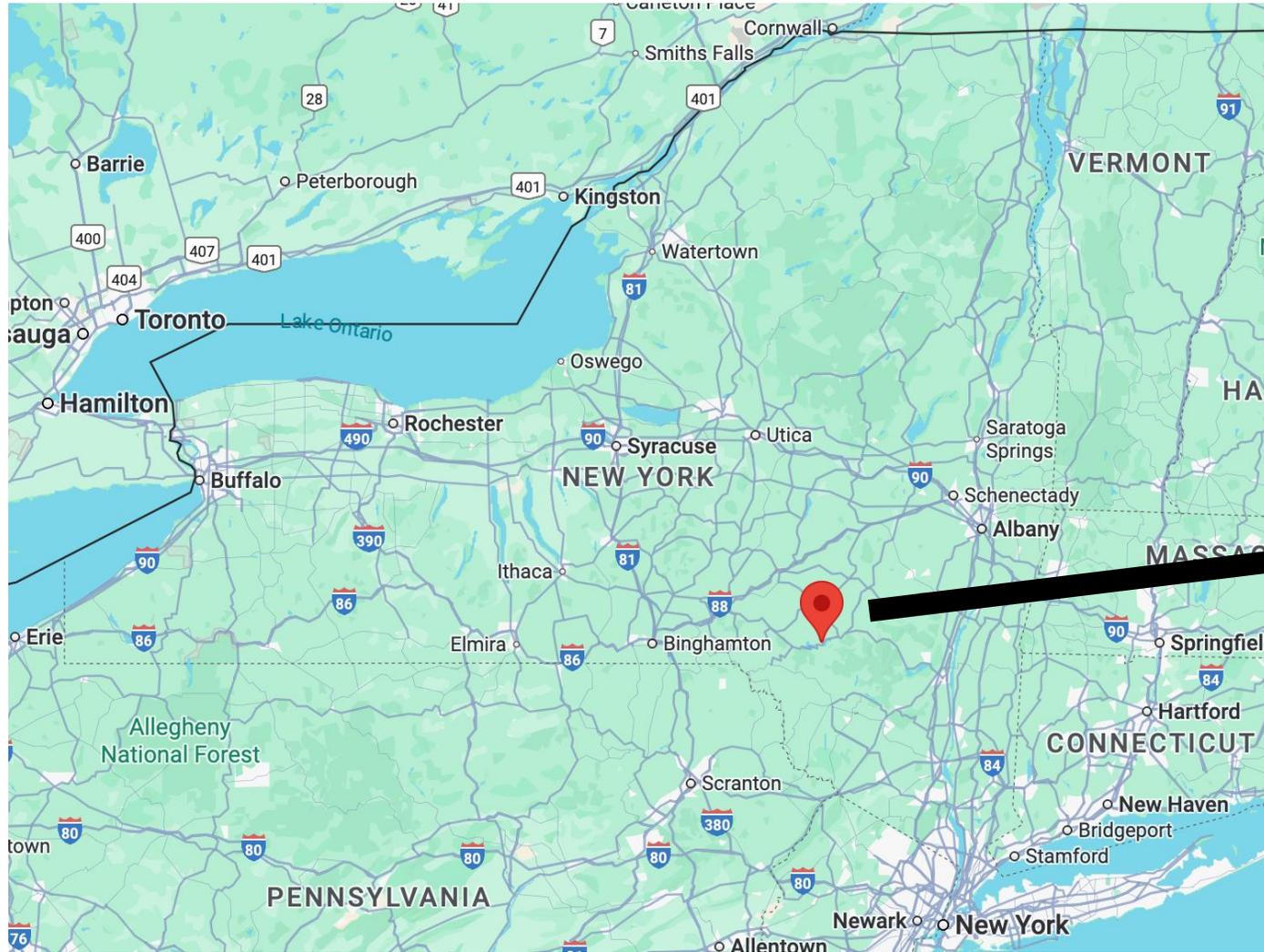


LAMONT-DOHERTY EARTH OBSERVATORY
 COLUMBIA CLIMATE SCHOOL

PERCH LAKE



PERCH LAKE



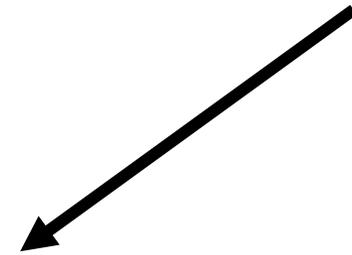
PERCH LAKE



LITHOLOGY



Basal Clay

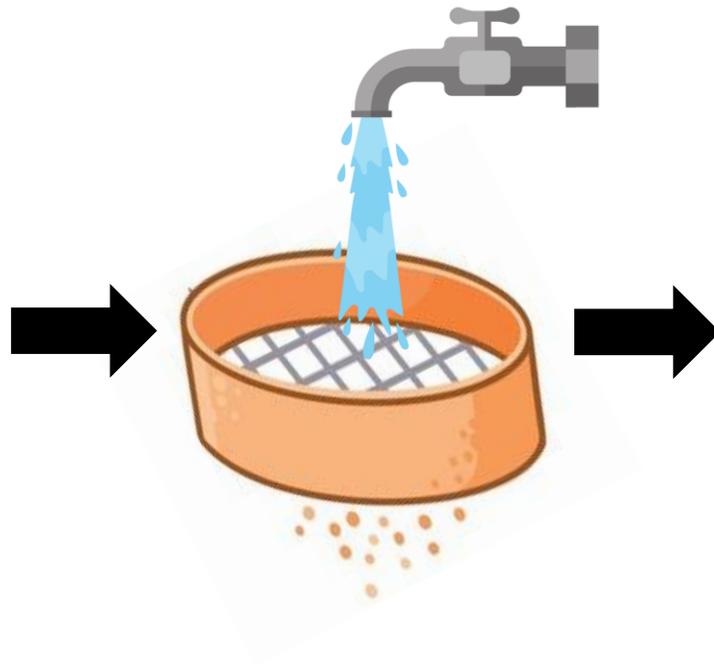


METHODOLOGY

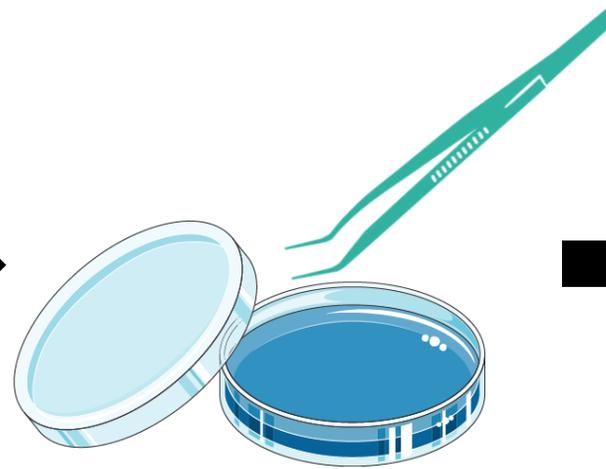
Sample



Sieve



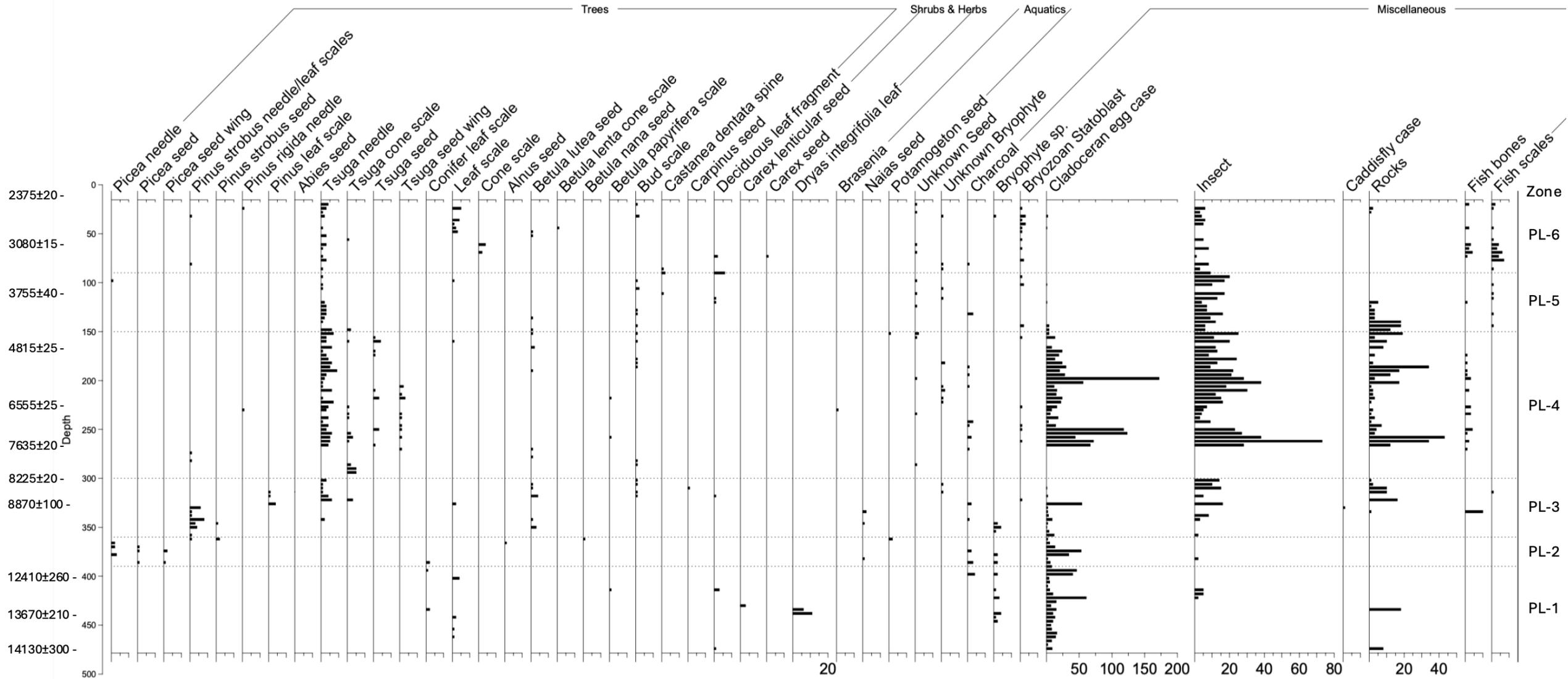
Pick



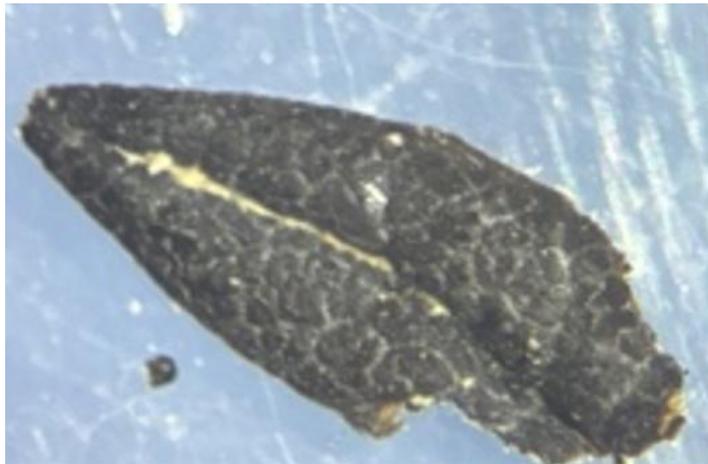
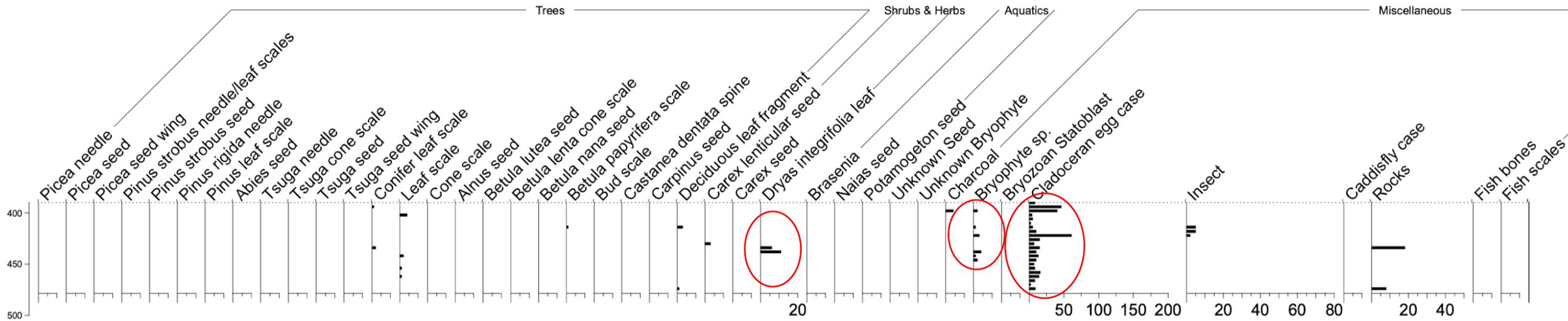
Identify



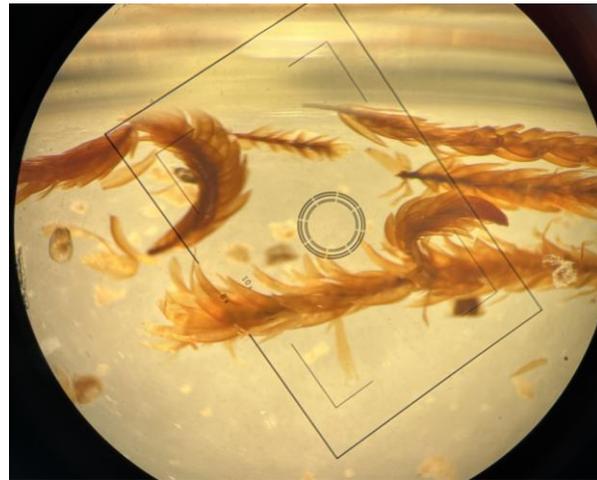
RESULTS



ZONE PL-1: 14130-12410 YRS BP



Dryas integrifolia leaf

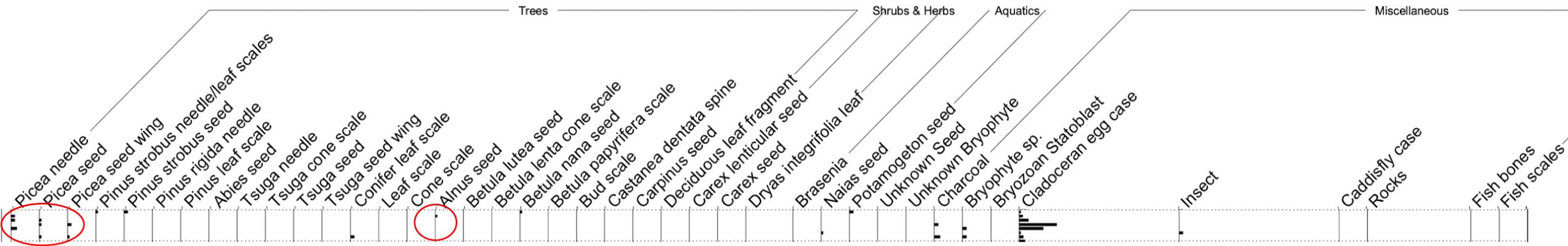


Bryophytes



Cladoceran

ZONE PL-2: 12400-11500 YRS BP

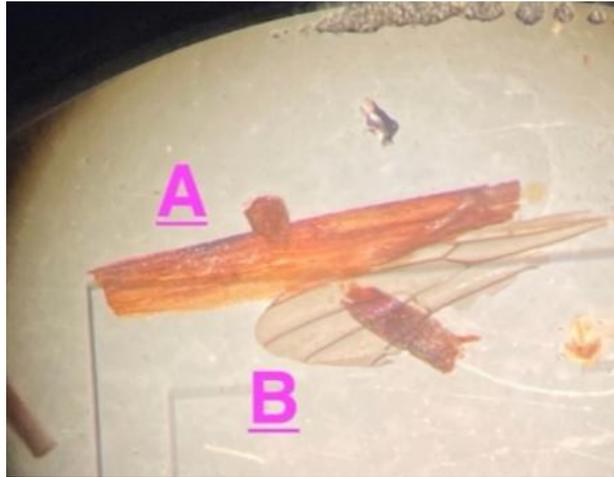
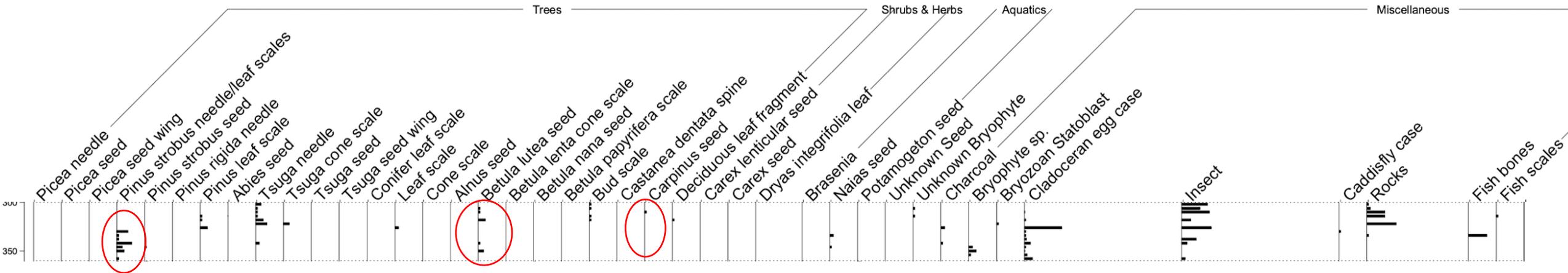


Picea glauca needle



Alnus seed

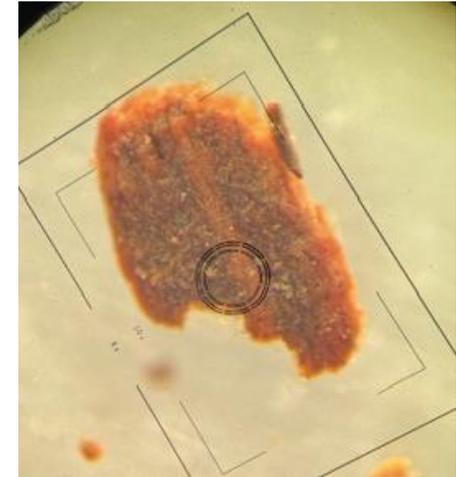
ZONE PL-3: 11500-8225 YRS BP



Pinus strobus leaf scale

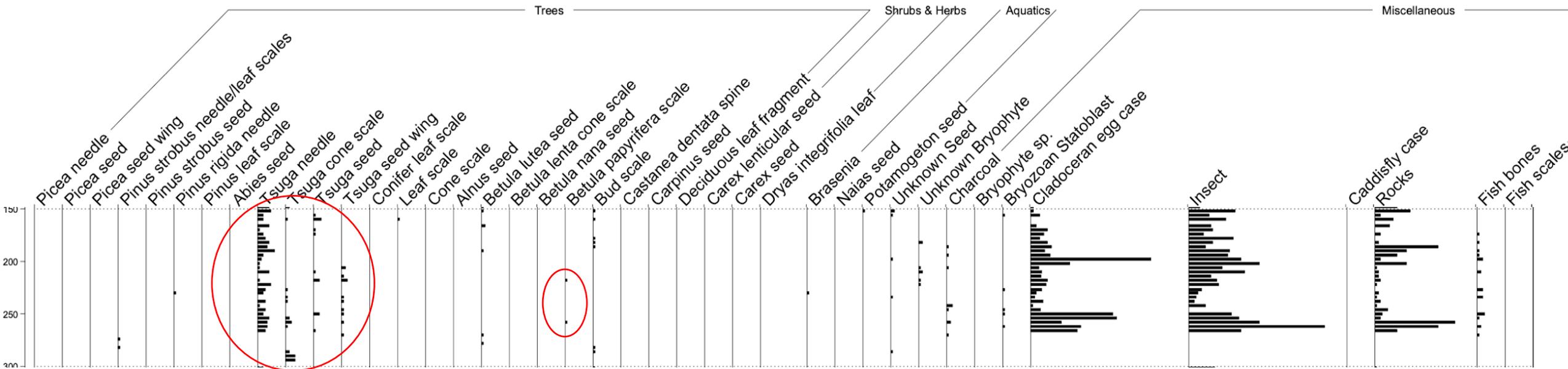


Betula lutea seed



Carpinus seed fragment

ZONE PL-4: 8225-4800 YRS BP



Tsuga seed

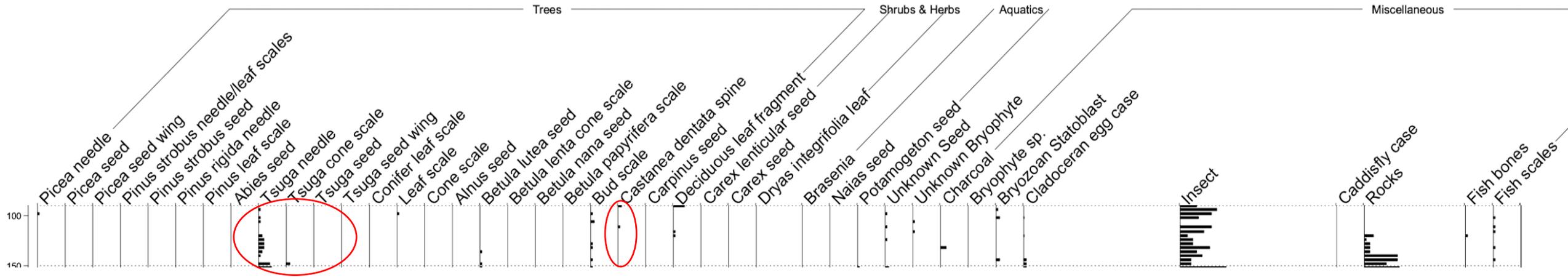


Tsuga petiole

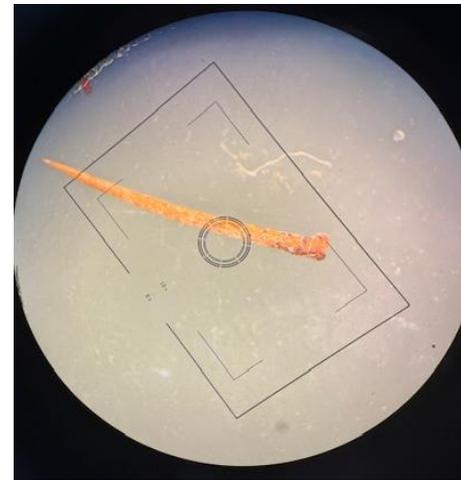


Betula papyrifera cone scale

ZONE PL-5: 4800-3700 YRS BP

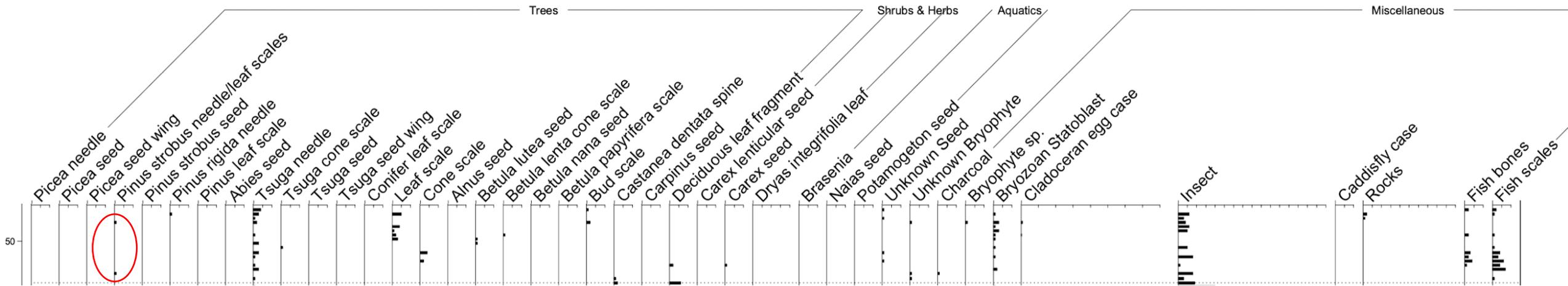


Castanea spine w/ nut

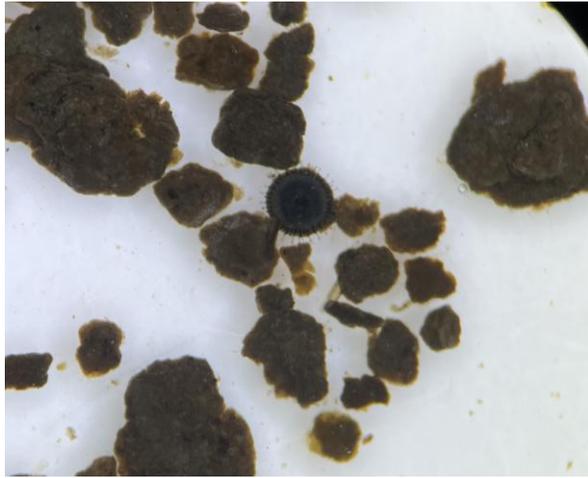


Castanea dentata spine

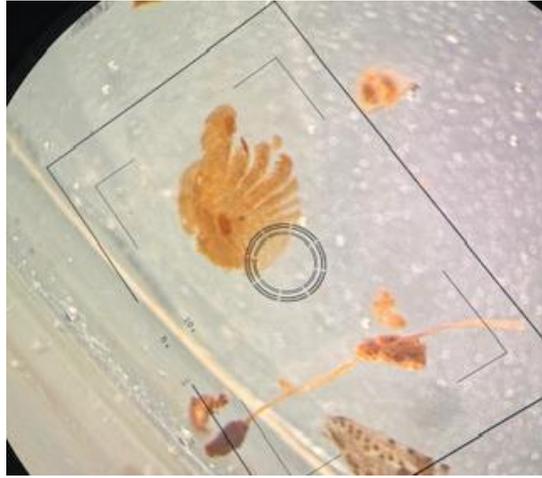
ZONE PL-6: 3700-2300 YRS BP



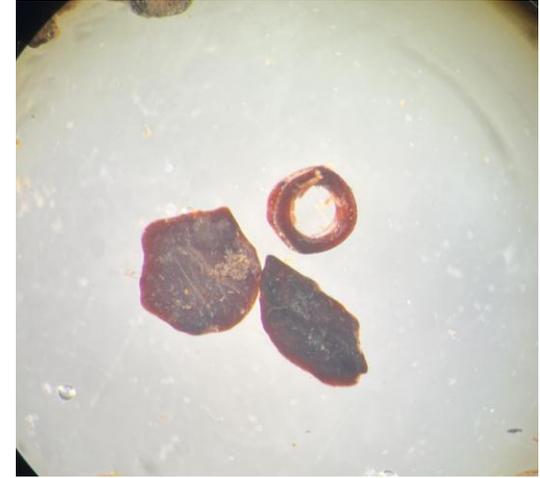
Pinus strobus seeds



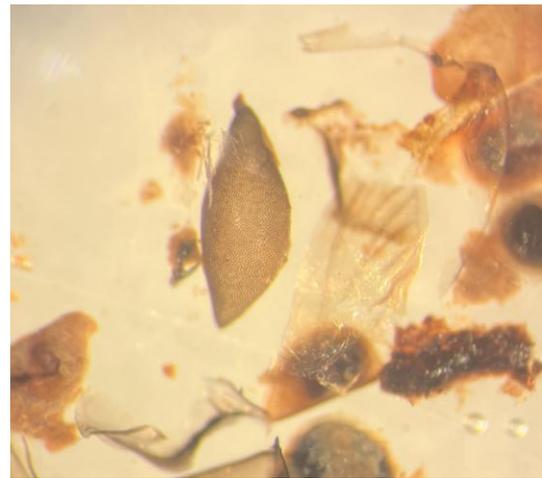
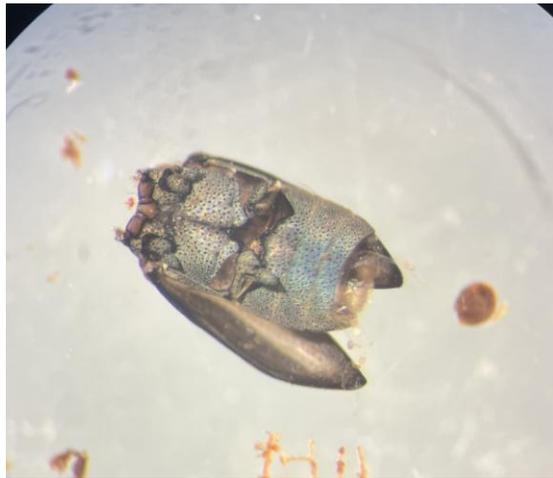
Bryozoan statoblast



Fish scale



Fish bones

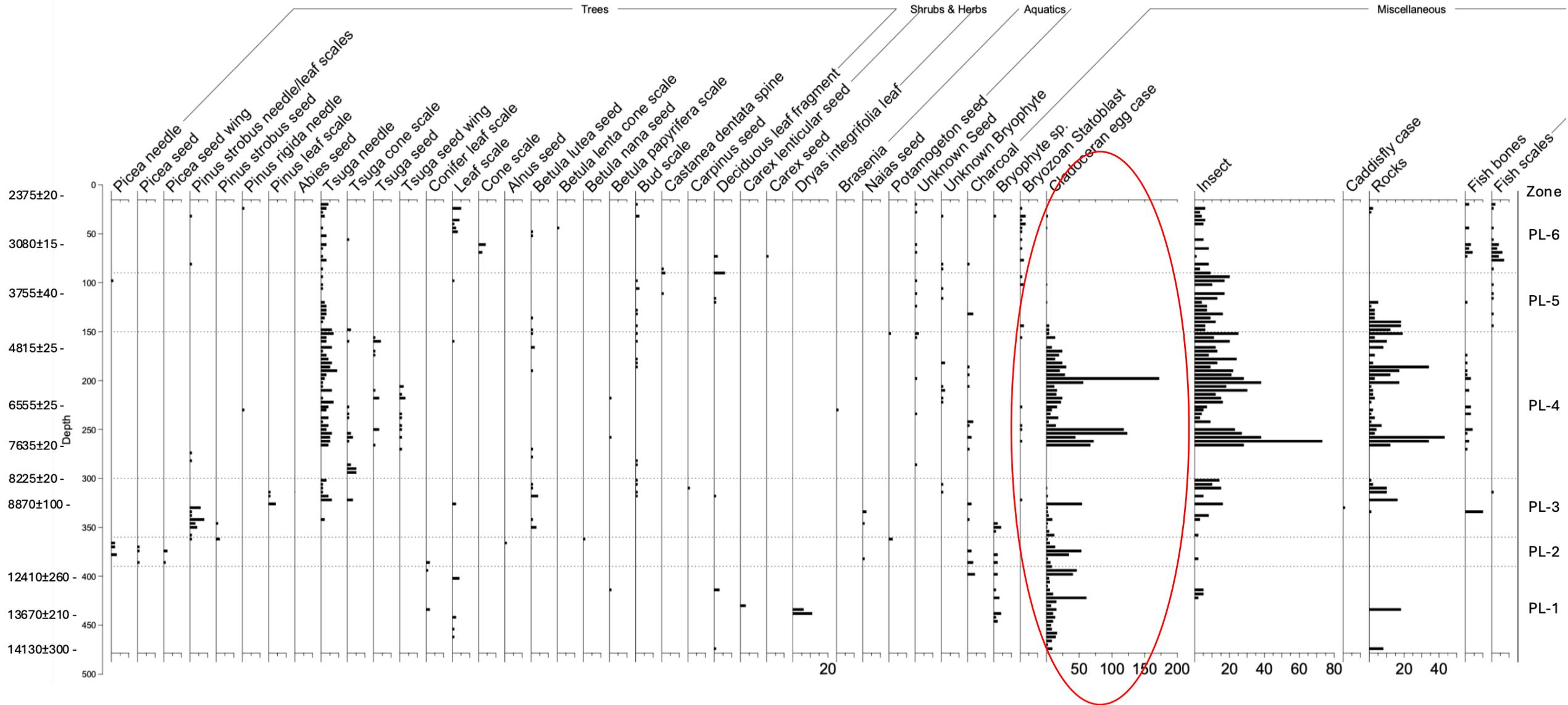


Insect pieces

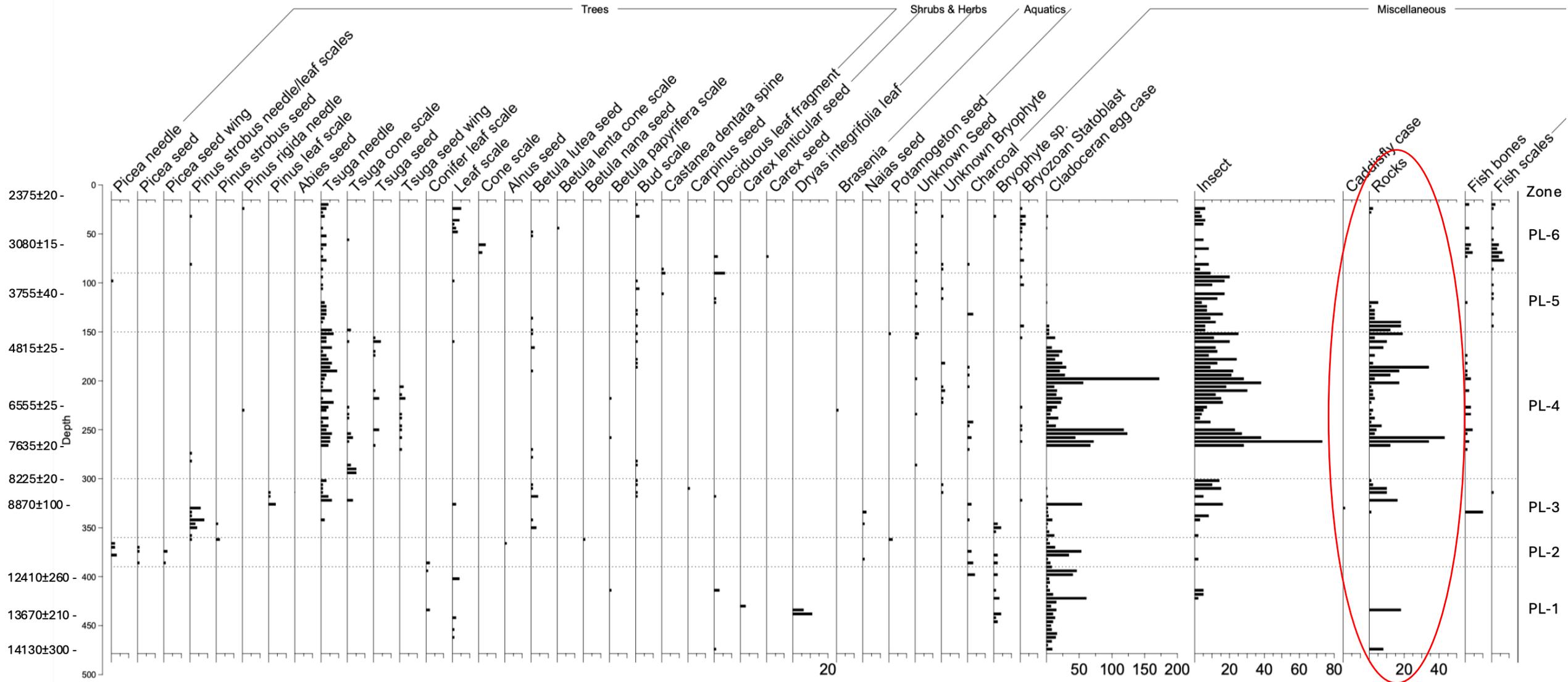
PROBING QUESTIONS

- Why do we see a variability in cladoceran? Nutrients? Predation?
 - Why are there fluctuations in rock abundance? Precipitation events or intensity?
 - What does the sudden appearance and increase in fish scales and bones mean?
 - Why is there a lack of many aquatics? Why are the aquatics that are present ones are usually found in shallow waters?
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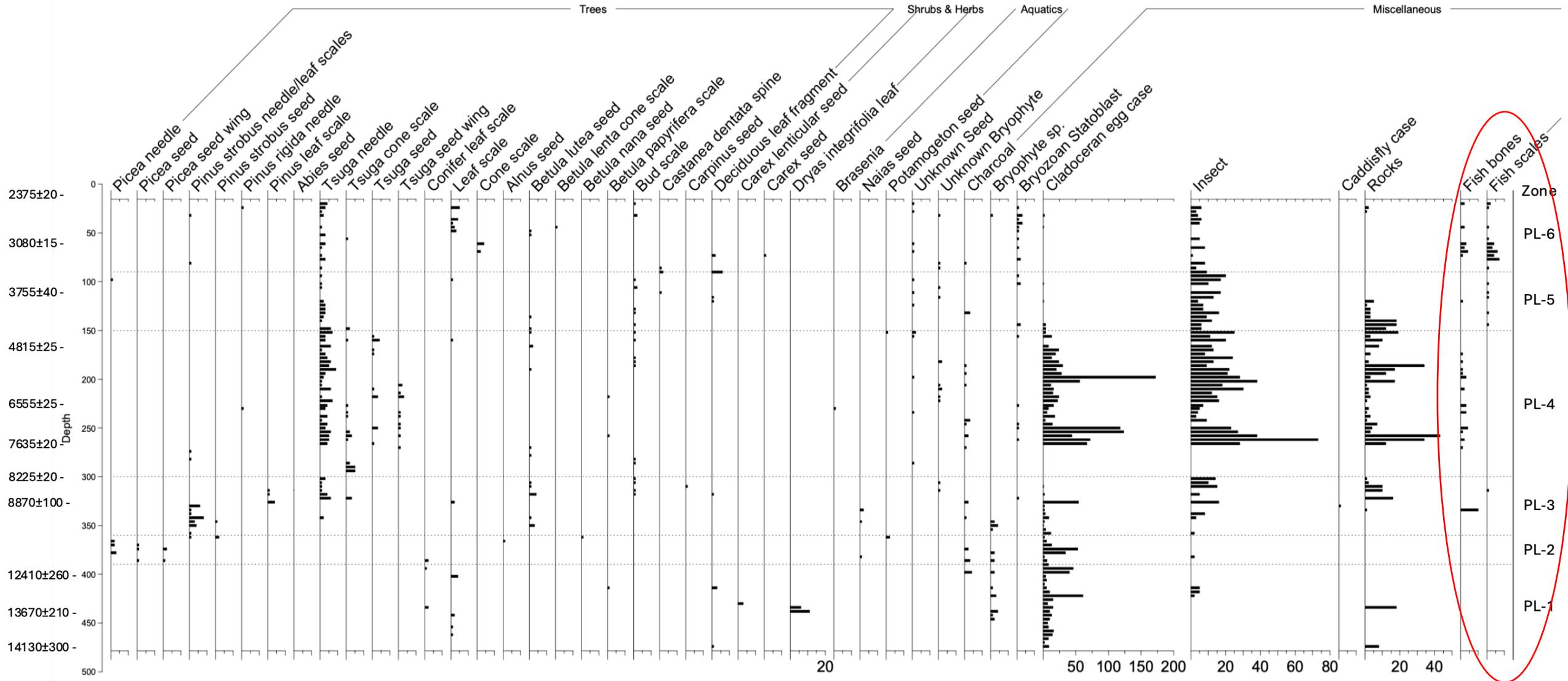
RESULTS



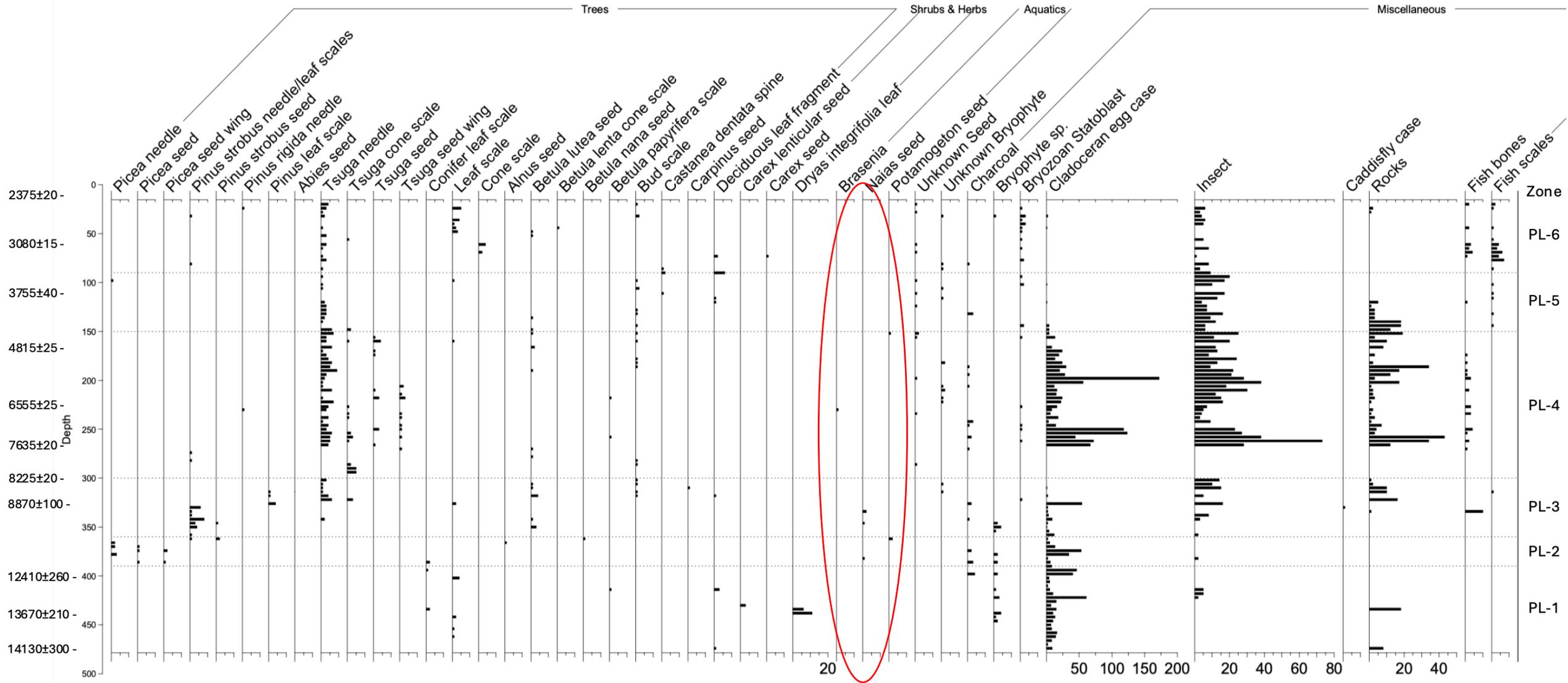
RESULTS



RESULTS



RESULTS



NEXT STEPS

- Process macrofossils from uppermost daisy core
 - LOI for the entire core
 - Carbon density
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THANK YOU!



Photo Credit: Mbpicstudio@gmail.com, 2021