

ISSUE PAPER: ADAPTING TO SUPPLY CHALLENGES AND SPECIES SUBSTITUTION FOR THE 10-DAY AMPHIPOD BIOASSAY

Send comments to
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by June 10th, 2024

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Issue Paper on [DMMO website](#)



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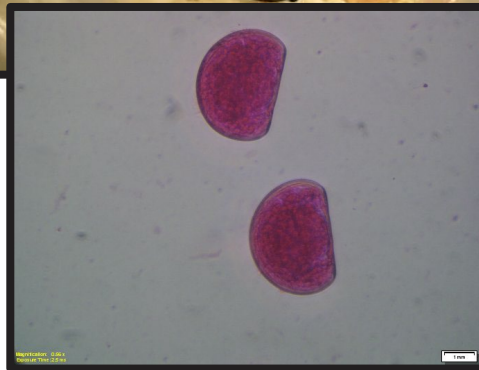


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MARINE BIOASSAYS

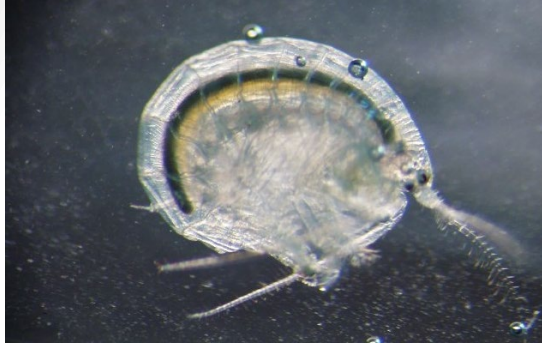
Test	20-Day Juvenile Infaunal Polychaete Growth Test	Sediment Larval Development Test	10-Day Amphipod Mortality Test
Species	<i>Neanthes arenaceodentata</i>	Mussel Sand Dollar Pacific Oyster Purple Sea Urchin	<i>Rhepoxinius abronius</i> <i>Eohaustorius estuarius</i> <i>Ampelisca abdita</i>





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MARINE AMPHIPODS



Ampelisca abdita



Eohaustorius estuarius



Rhexoxinius abronius

% Fines (Silt + Clay)	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
% Sand	100-90	90-80	80-70	70-60	60-50	50-40	40-30	30-30	20-10	10-0
<i>Ampelisca abdita</i>										
<i>Eohaustorius estuarius</i>										
<i>Rhexoxinius abronius</i>										



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AMPHIPOD SEASONALITY



Species	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
<i>Ampelisca abdita</i> (Pacific)	Green	Gold	Orange	Orange	Gold	Green	Green	Green	Green	Green	Green	Green
<i>Ampelisca abdita</i> (Atlantic)	Green	Green	Green	Gold	Orange	Orange	Gold	Green	Green	Green	Green	Green
<i>Eohaustorius</i> <i>estuarius</i>	Green	Gold	Gold	Green	Green	Green	Green	Green	Green	Green	Green	Green
<i>Rhepoxinius</i> <i>abronius</i>	Green	Green	Green	Green	Green	Green	Gold	Gold	Gold	Green	Green	Green

Green = available

Gold = fringe months (Mature adults reproducing or offspring coming into size)

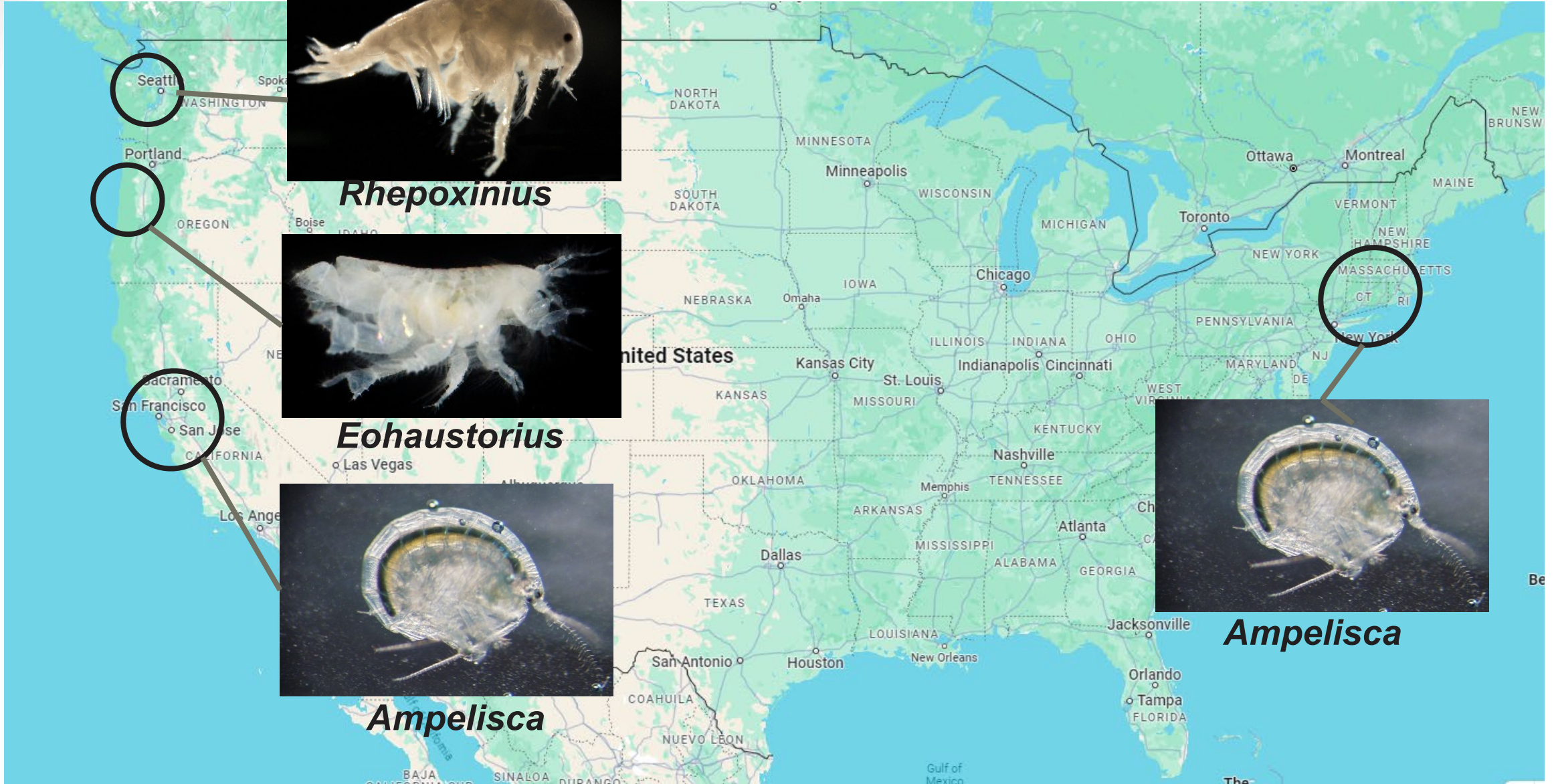
Orange = not available



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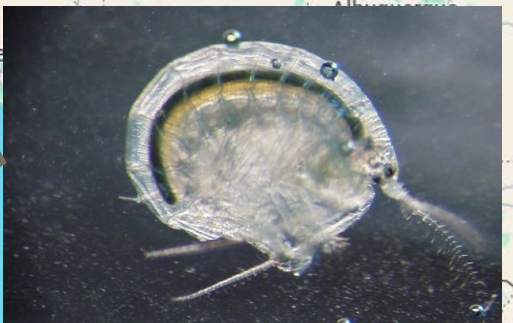
AMPHIPOD SUPPLY CHAIN



Rhepoxinius



Eohaustorius



Ampelisca



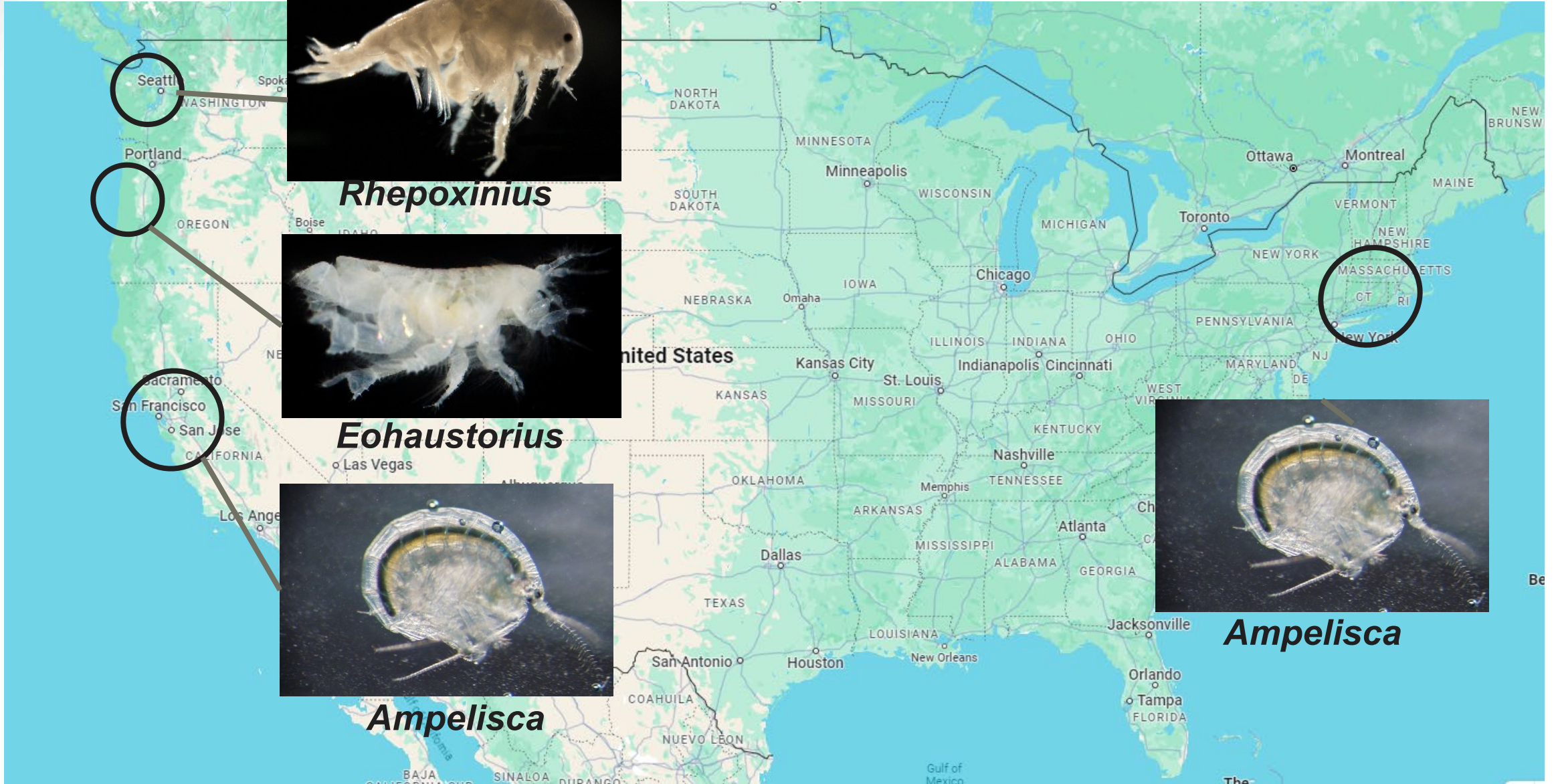
Ampelisca



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AMPHIPOD SUPPLY CHAIN



Rhepoxinius



Eohaustorius



Ampelisca



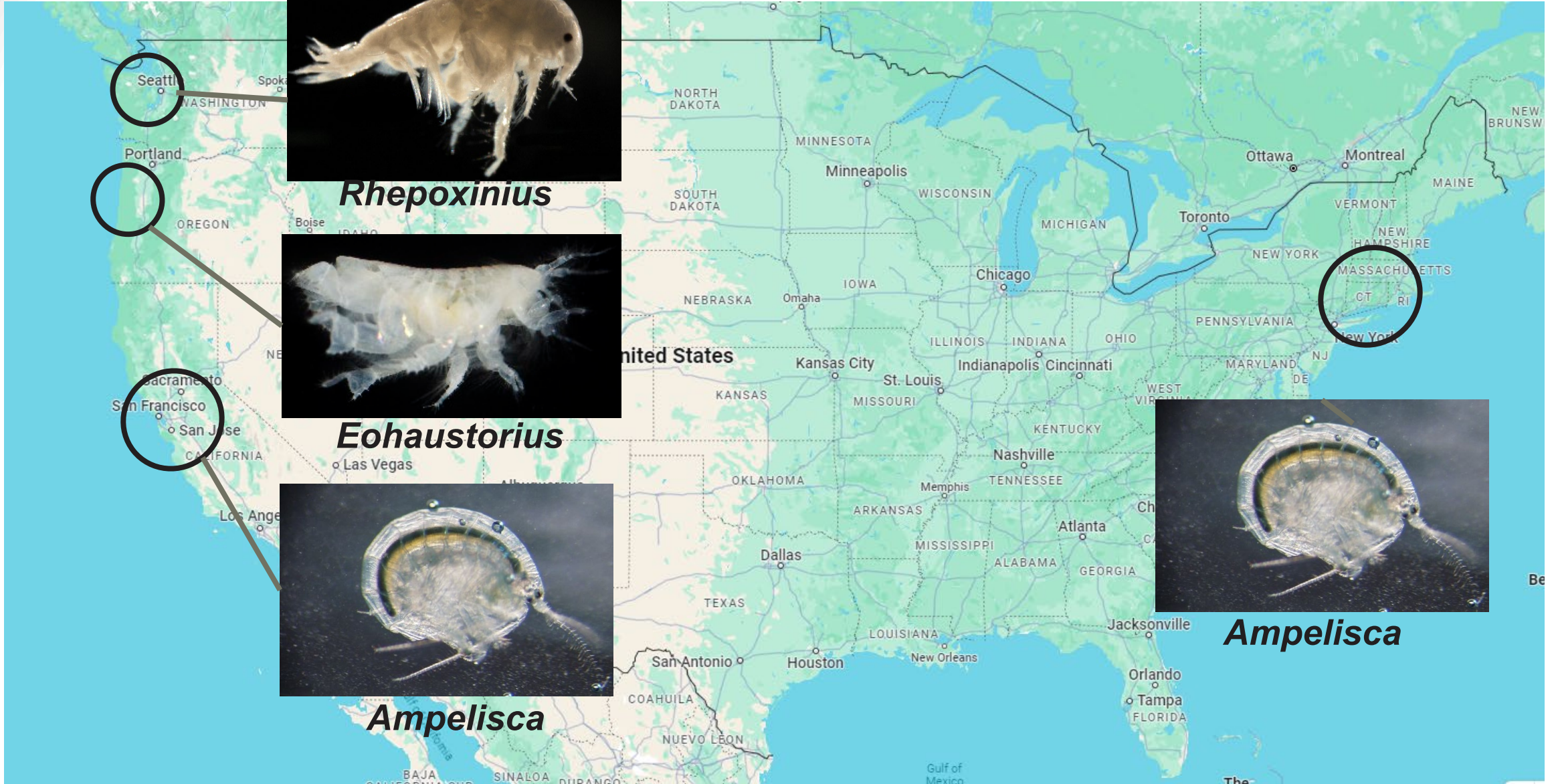
Ampelisca



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AMPHIPOD SUPPLY CHAIN

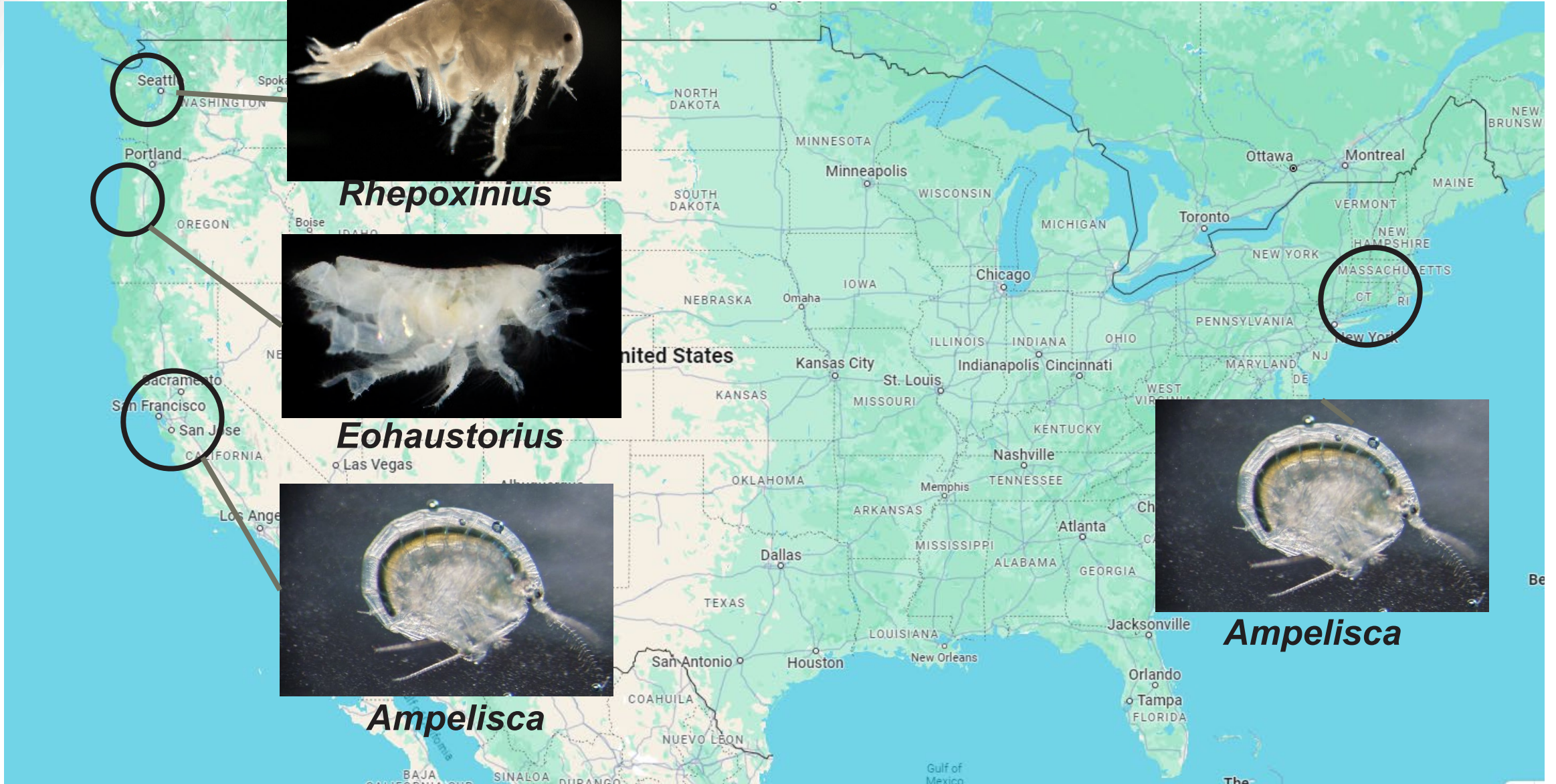




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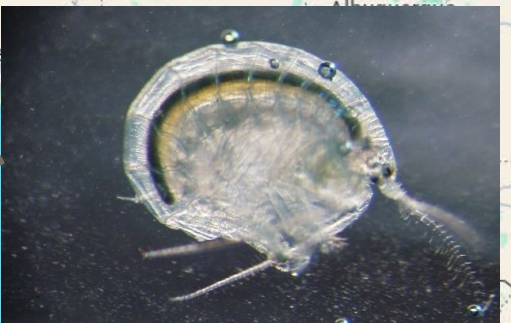
AMPHIPOD SUPPLY CHAIN



Rhepoxinius



Eohaustorius



Ampelisca



Ampelisca

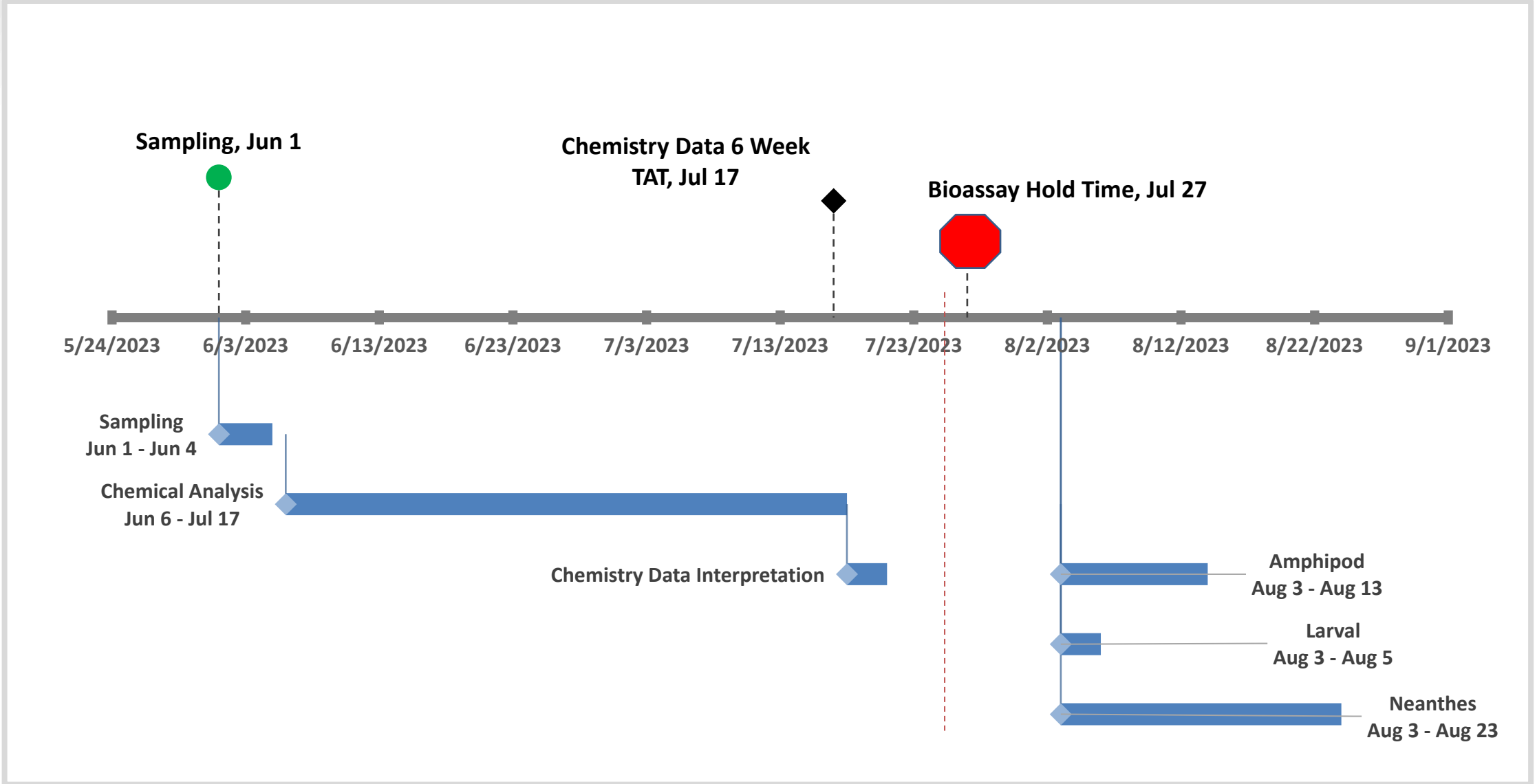


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TIERED TESTING TIMELINE



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PROPOSED ISSUE SOLUTION

10



Leptocheirus plumulosus

- Cultured
 - Multiple commercial sources
 - Testing Labs may culture themselves
- Does not have significant seasonal variability that affects supply

SPECS

Open tube builder

Salinity range 0-32 ppt.

Ammonia sensitivity like Eohaustorius

Tolerant of a wide range of grain size.



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