Which factors influence Manila clam survival on Lummi Nation tidal flats?

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Which factors influence Manila clam survival on Lummi Nation tidal flats?

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Manila clam, Japanese littleneck
Venerupis philippinarum
Potential causes for population decline:

- Unreported or unregulated harvesting
- Winter freezing
- Hydrogen sulfide in sediments
- Changes in diet and food availability
6 months later...
The graph shows the comparison of clam sizes at different locations:

- **Sandy Point**: n=103
- **Middle Lummi**: n=414
- **East Lummi**: n=107
- **Brant Island**: n=1237

The Y-axis represents clam size in mm.
Brant Island (▼) had the lowest and most variable salinity.

Brant Island (▼) and Sandy Point (▲) had highest inputs of terrestrial POM.
Brant Island (▼) had the lowest $\delta^{13}C$ throughout the year, except for January.
Next steps:

• Fatty acid analyses
• Analyze phytoplankton samples
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