Lacustrine Environments - origins of silting events

**Lacustrine Environments**
- Native to lakes, silting events are critical for understanding lake histories.

**Palaeoseismology**
- Reconstructs past earthquake events through sedimentary evidence.

**Potential Lacustrine Records of Cascadia Great Earthquakes**
- Intense activity is observed in the Cascadia Subduction Zone.

**USEFULNESS OF EARTHQUAKE RECORDS FROM CASCADIA INLAND LAKES**
- Records from: Lake Washington, Sanger Lake.

**FUTURE WORK**
- Investigate the role of lake environments in earthquake recording.

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**ABSTRACT**

Lacustrine records have been used successfully to document past great earthquakes, but few studies have focused on sedimentary records in the continental United States. We examined lacustrine records from the Pacific Northwest, USA, to determine the usefulness of these records in terms of earthquake recording.

The field of paleolimnological studies has contributed to understanding the impacts of earthquake shaking on lake sedimentation processes, but few studies have focused on the Cascadia Subduction Zone.

The high-resolution record at Lake Washington provides insights into the frequency and magnitude of earthquakes on the Cascadia Subduction Zone. The lake records provide evidence of coseismic sedimentation events, which are critical for understanding the impacts of earthquakes on lake environments.

**COMPARISON OF MARINE AND LACUSTRIAN RECORDS**

Comparing marine records from the Cascadia Margin with lacustrine records from the Pacific Northwest provides insights into the effectiveness of these records in documenting past earthquakes.

**ARE THEY EARTHQUAKE-GENERATED DEPOSITS?**

Marine Environments - Synchronous Triggering

**Possibility Mechanisms**
- How sedimentary archives can indicate past earthquakes.

**Deep-Sea, Coastal and Inland Lake Sites**
- Sampling sites: Lake Washington, Sanger Lake, Bolen Lake.

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**References:**

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**Figures:**
- Permanent deformation of lake sediments due to coseismic sedimentation.
- Lake Washington: Implications for Cascadia Great Earthquake (CGE) magnitude determination.

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**Keywords:**
- Lacustrine records, earthquake paleoseismology, Cascadia Subduction Zone.