

Active Faults in Southern British Columbia???

J.F. Cassidy (Geological Survey of Canada)

Pacific Northwest Workshop, March 28-29, 2006

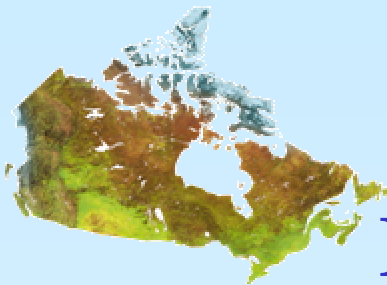


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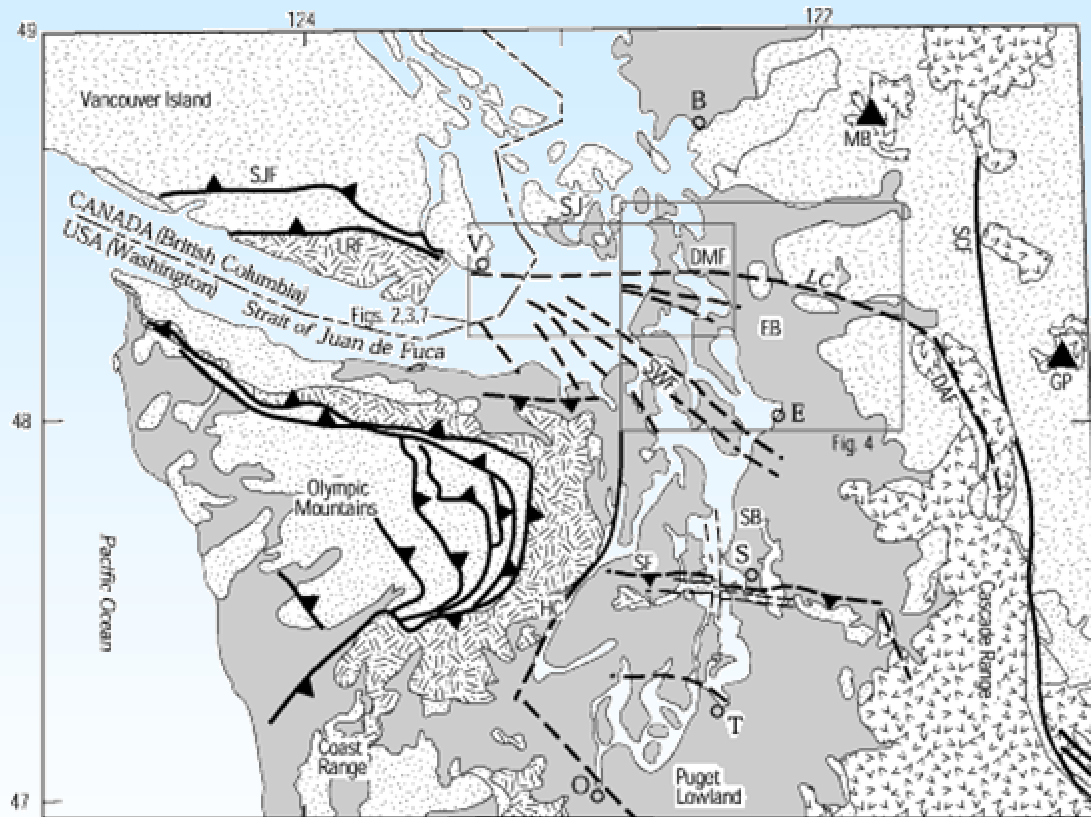
Ressources naturelles
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Faults near southern Vancouver Island

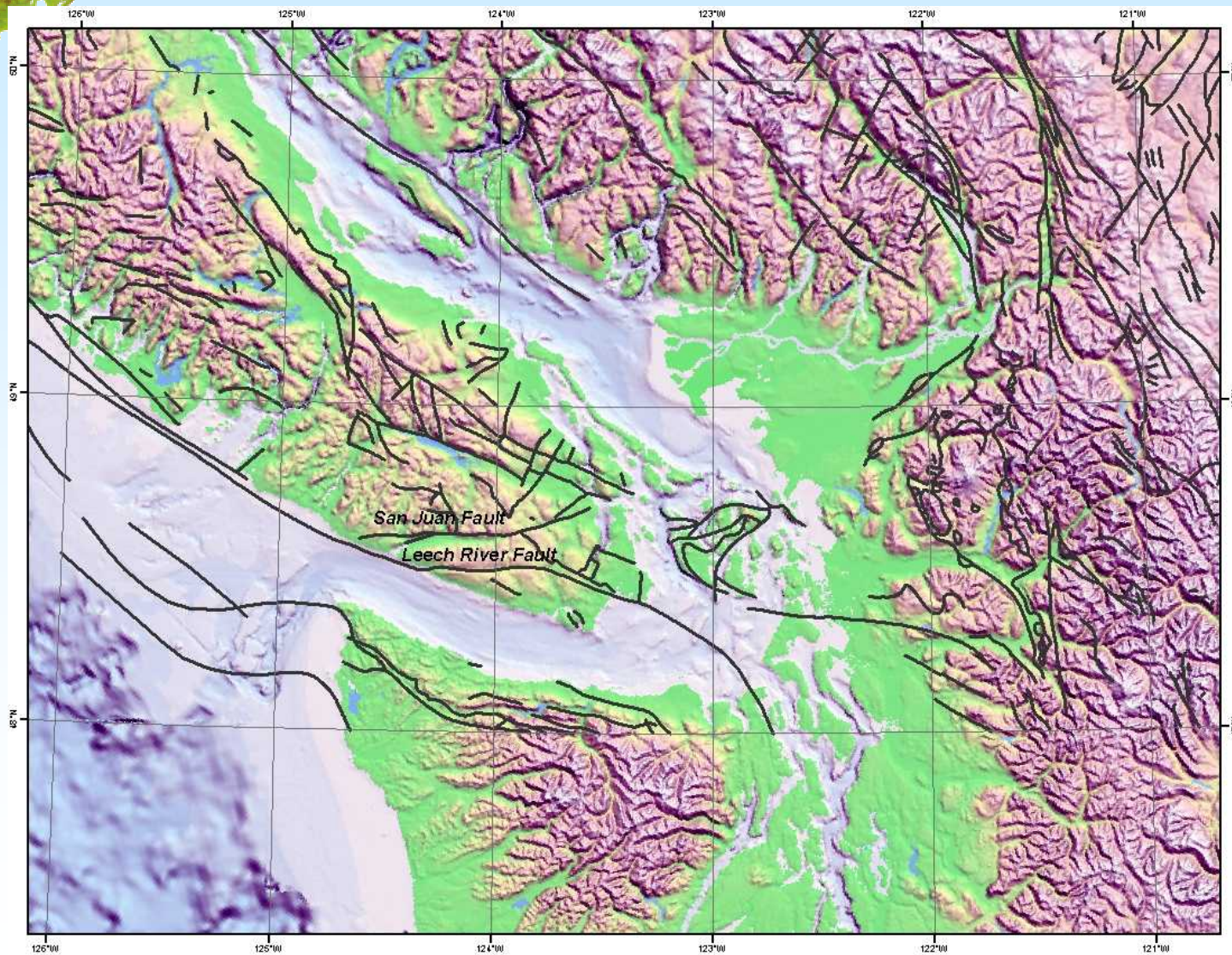
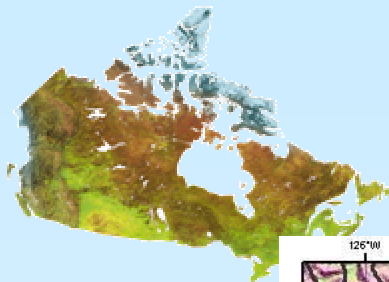


EXPLANATION

Surficial deposits (Quaternary)	Cascade Range igneous rocks (Eocene and younger) and Columbia River Basalt Group (Miocene)	Basement rocks (pre-Tertiary)
Sedimentary rocks (Neogene to Paleogene)	Crescent Formation and other Eocene volcanic rocks	



Faults of Southwest BC



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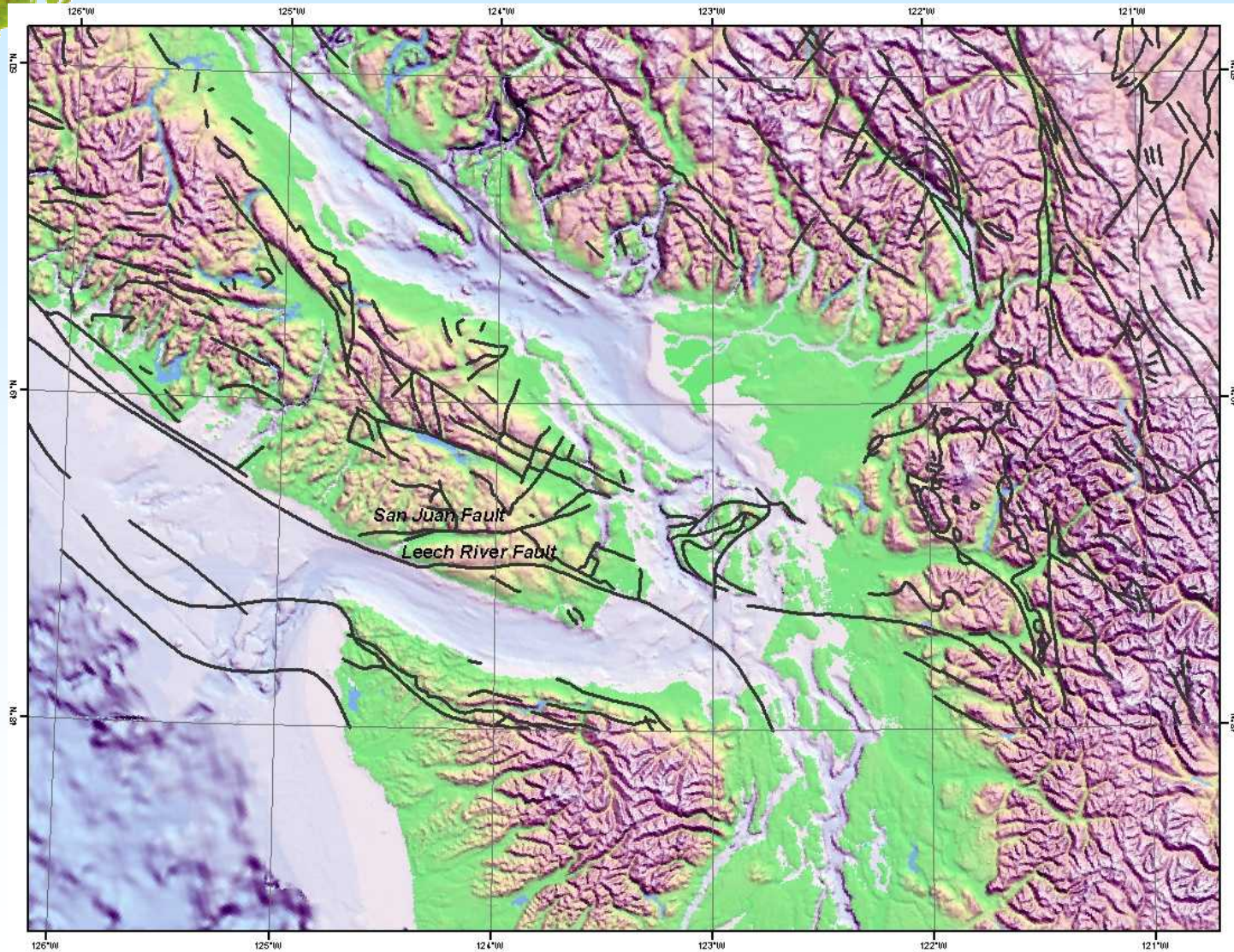


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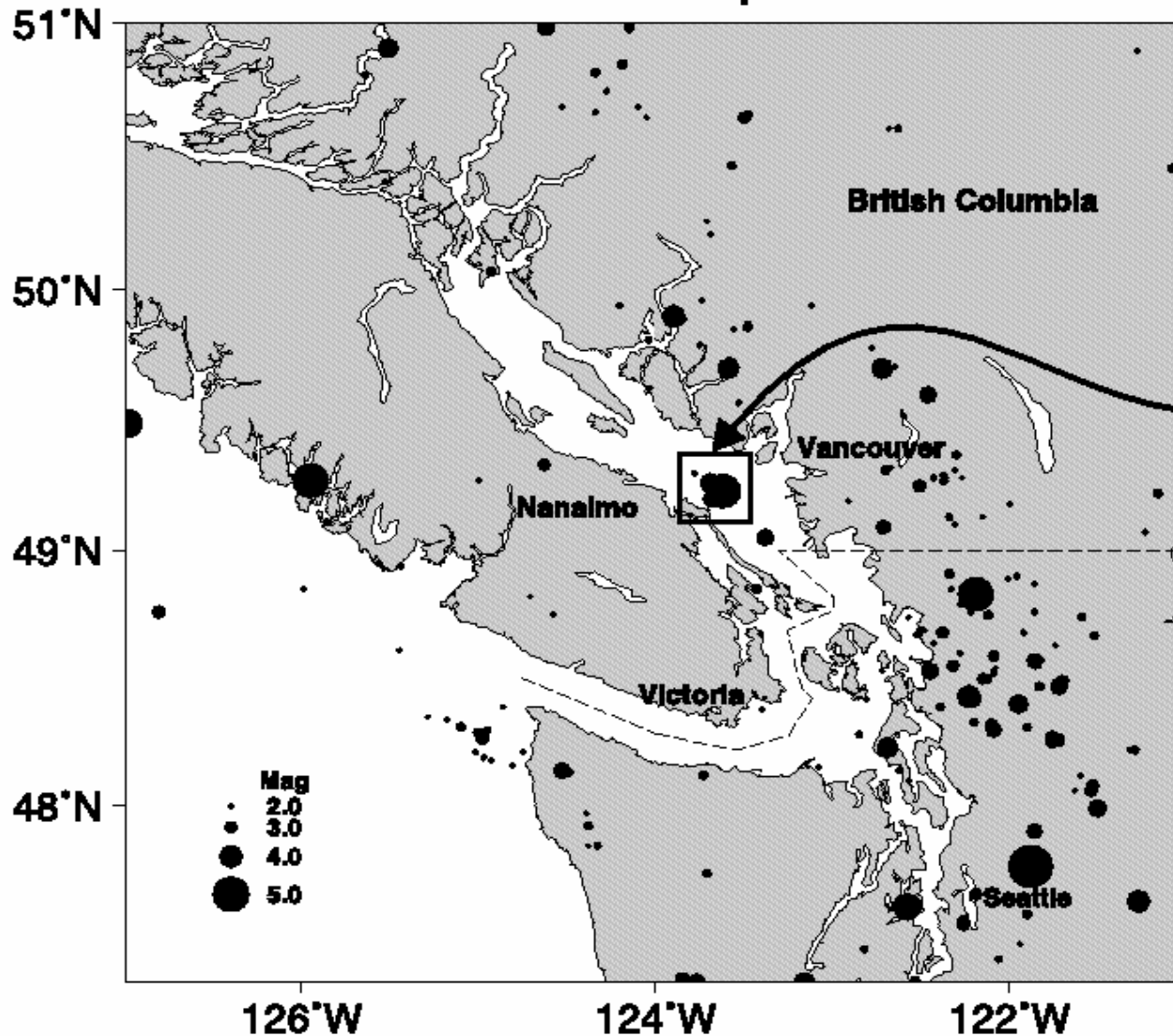
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Known Active Faults in BC - Shown in Bright Red



Shallow Seismicity (< 6 km)

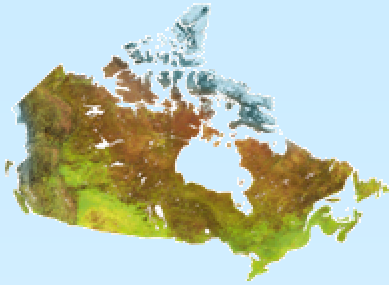
M>2 Shallow Crustal Earthquakes 1975-1999



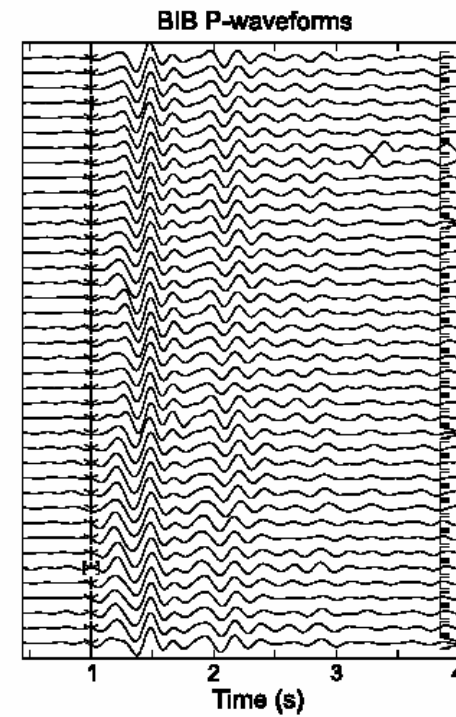
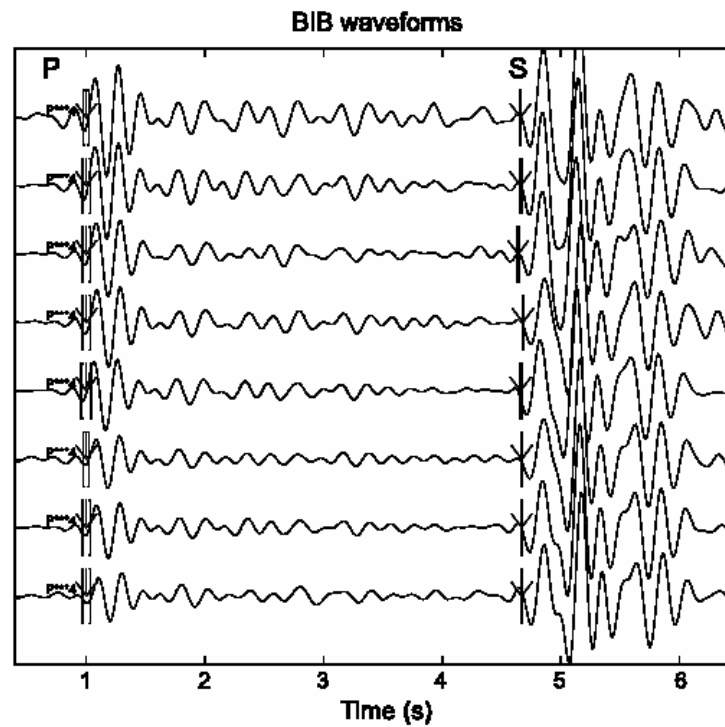
Felt Earthquakes

Date	Magnitude
1975 Nov 30	4.9
Nov 30	3.2
Dec 11	3.8
1976 Mar 10	3.6
1995 Nov 25	2.8
1997 Jun 13	3.4
Jun 24	4.6
1999 Jan 21	2.9



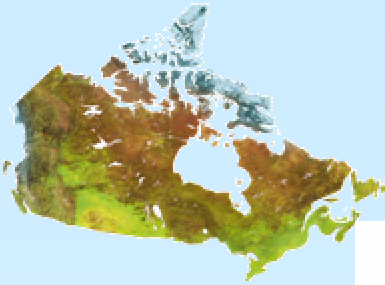


1997 Strait of Georgia Events



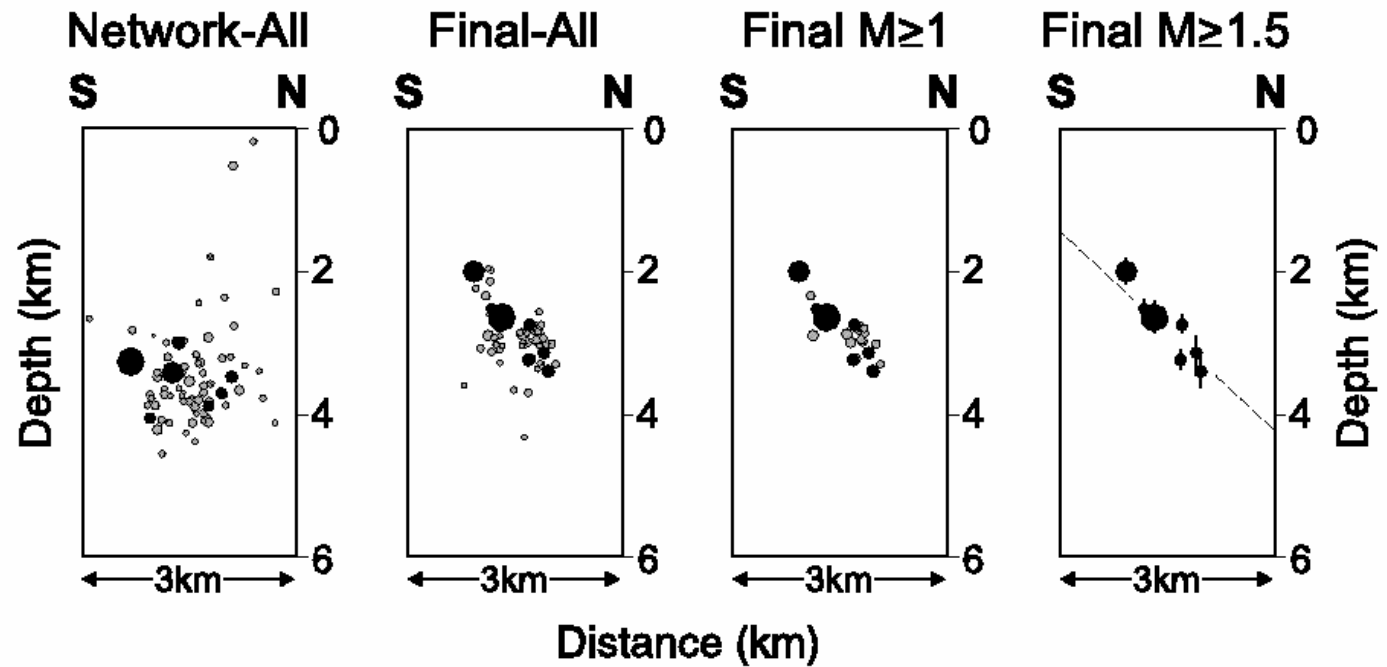
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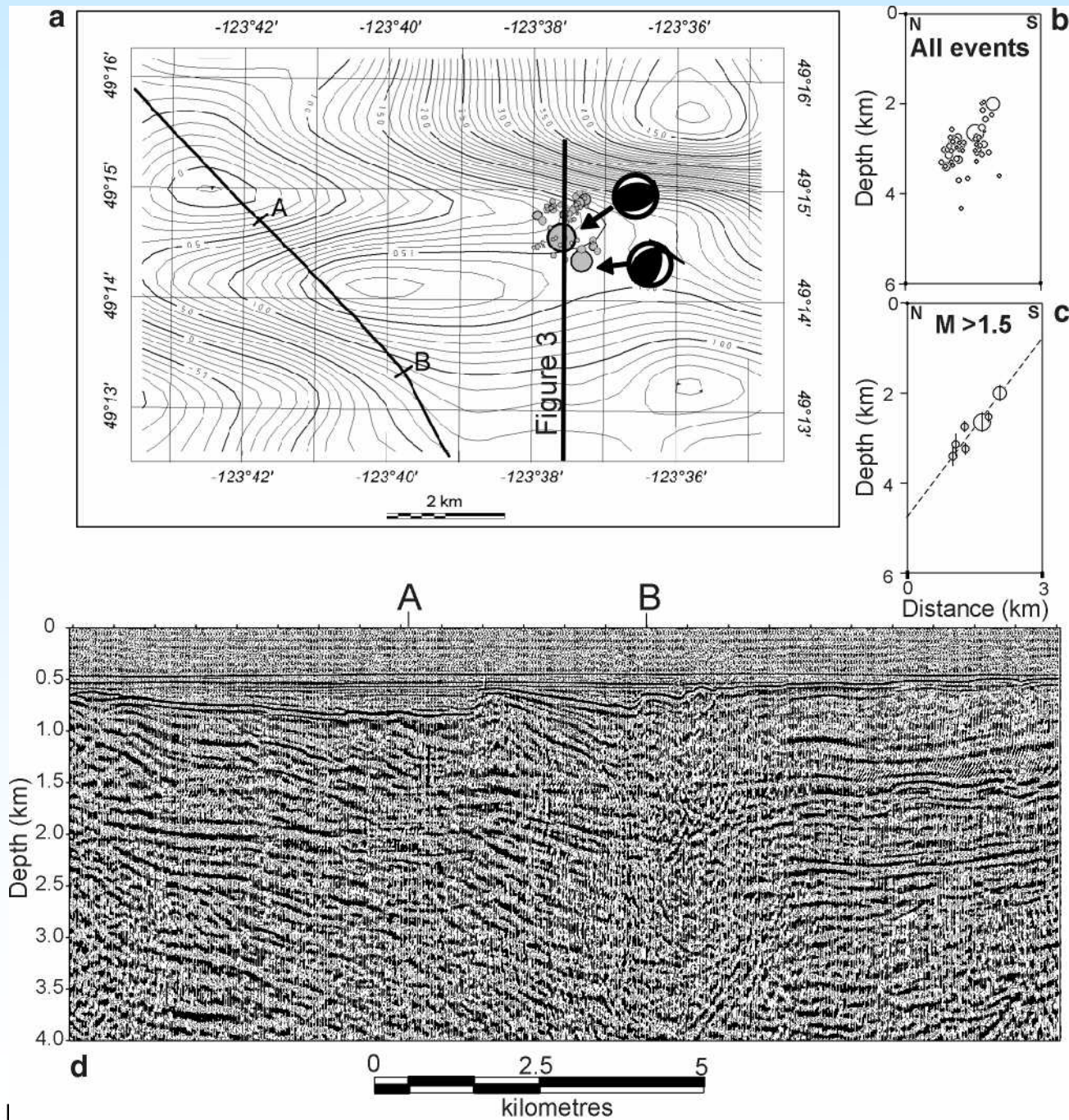
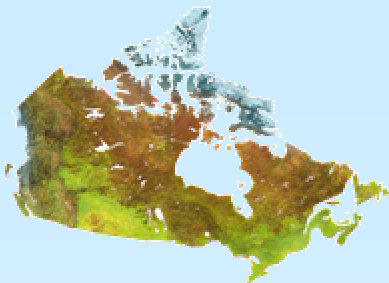
Canada



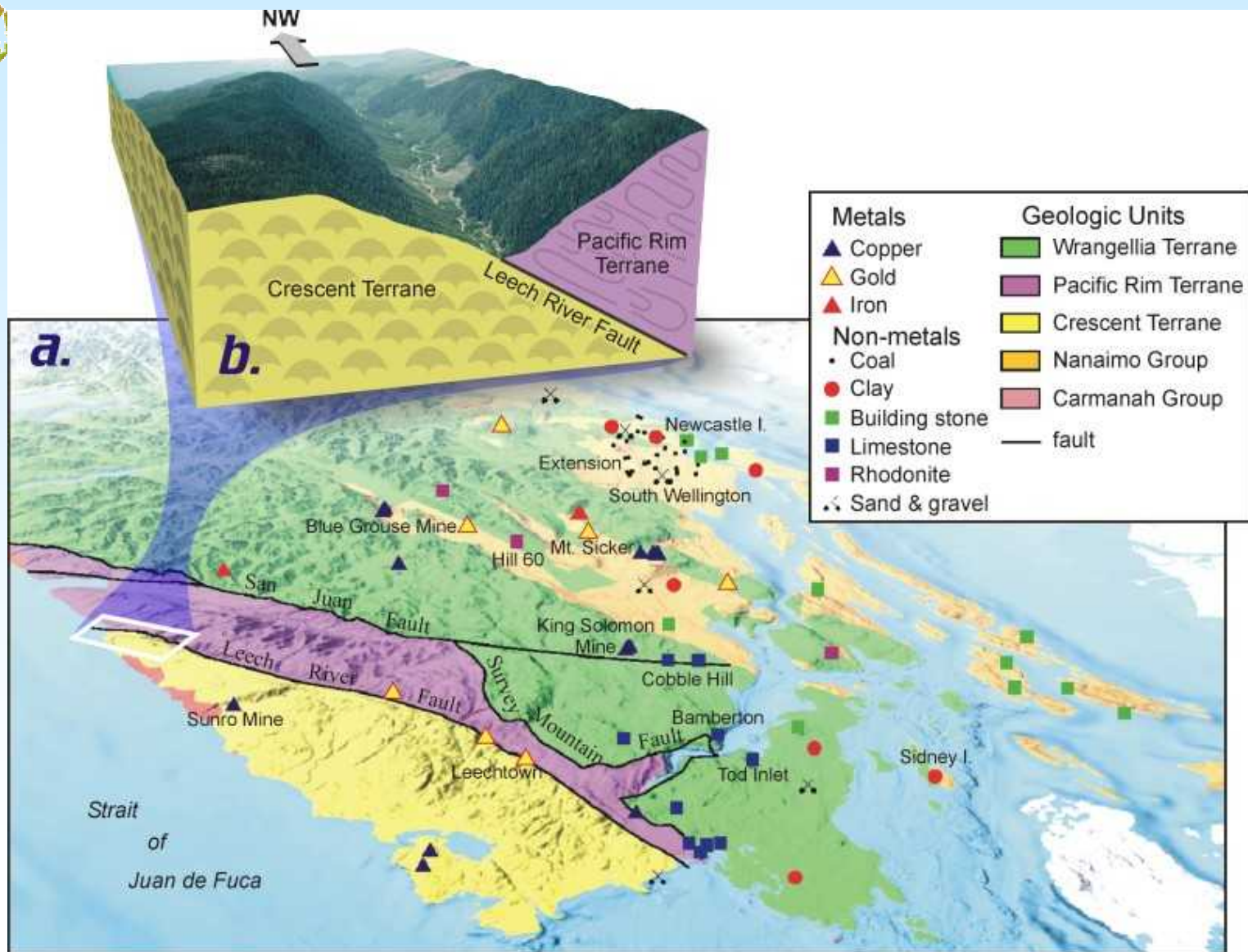
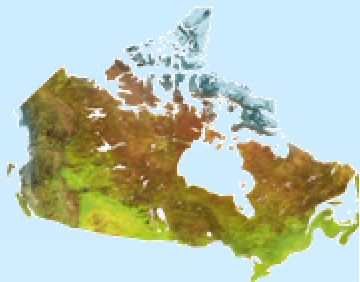
1997 Strait of Georgia

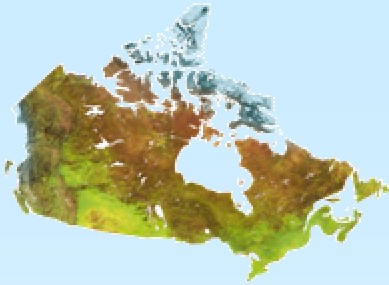
N - S Cross-section



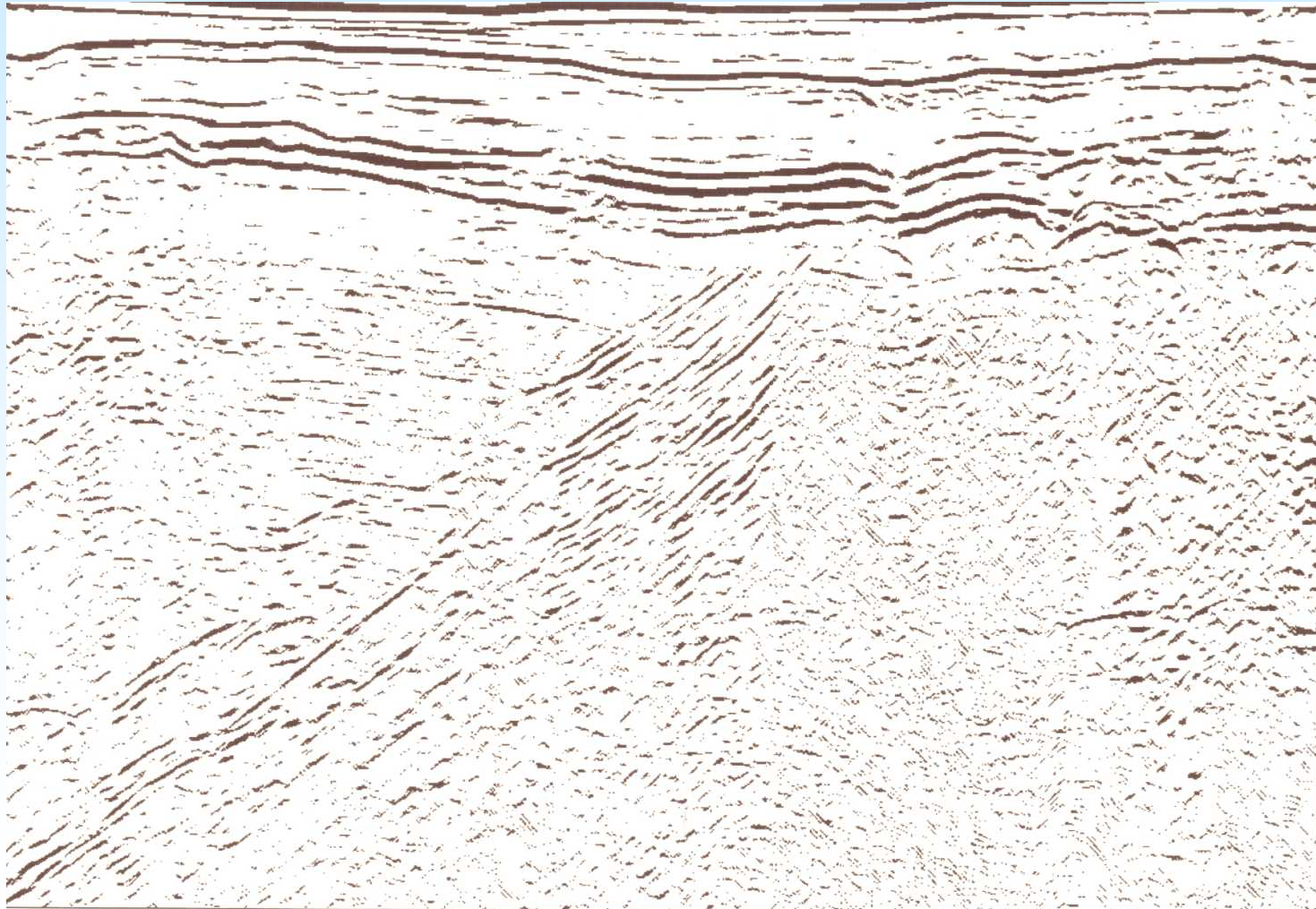


Southern Vancouver Island Faults





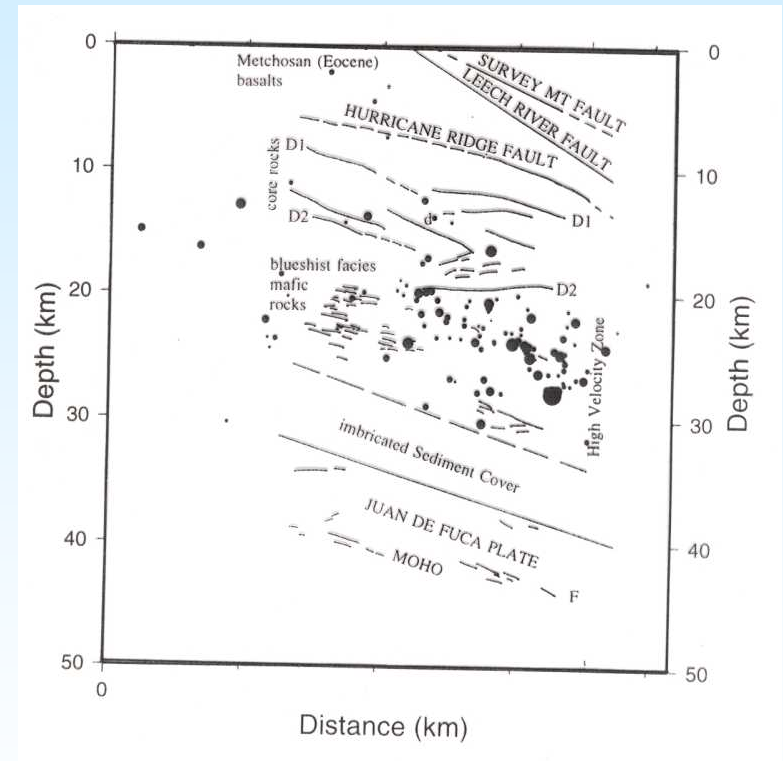
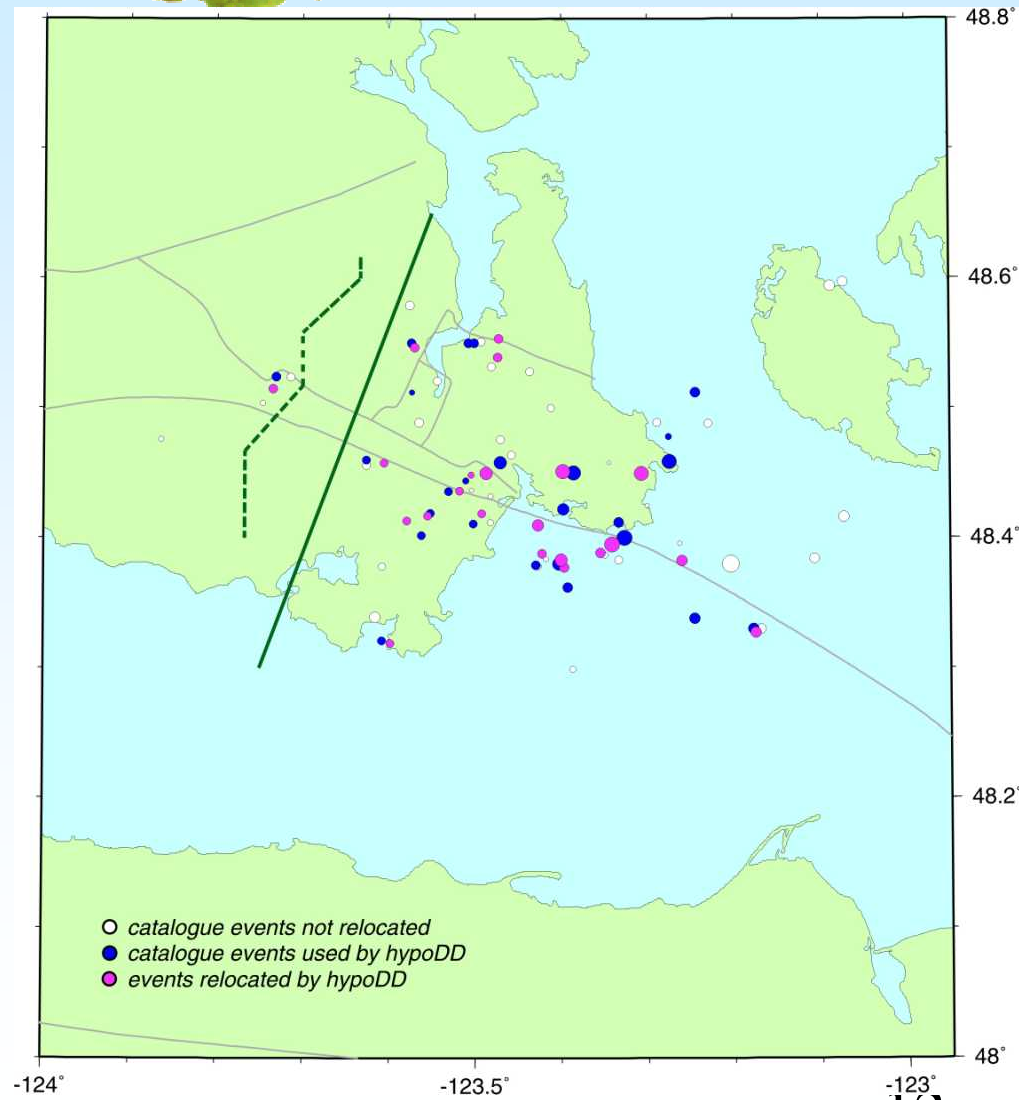
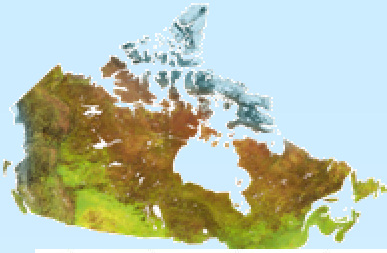
Leech River Fault – Northwest



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Leech River Fault Seismicity?



Thanks to T. Mulder



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