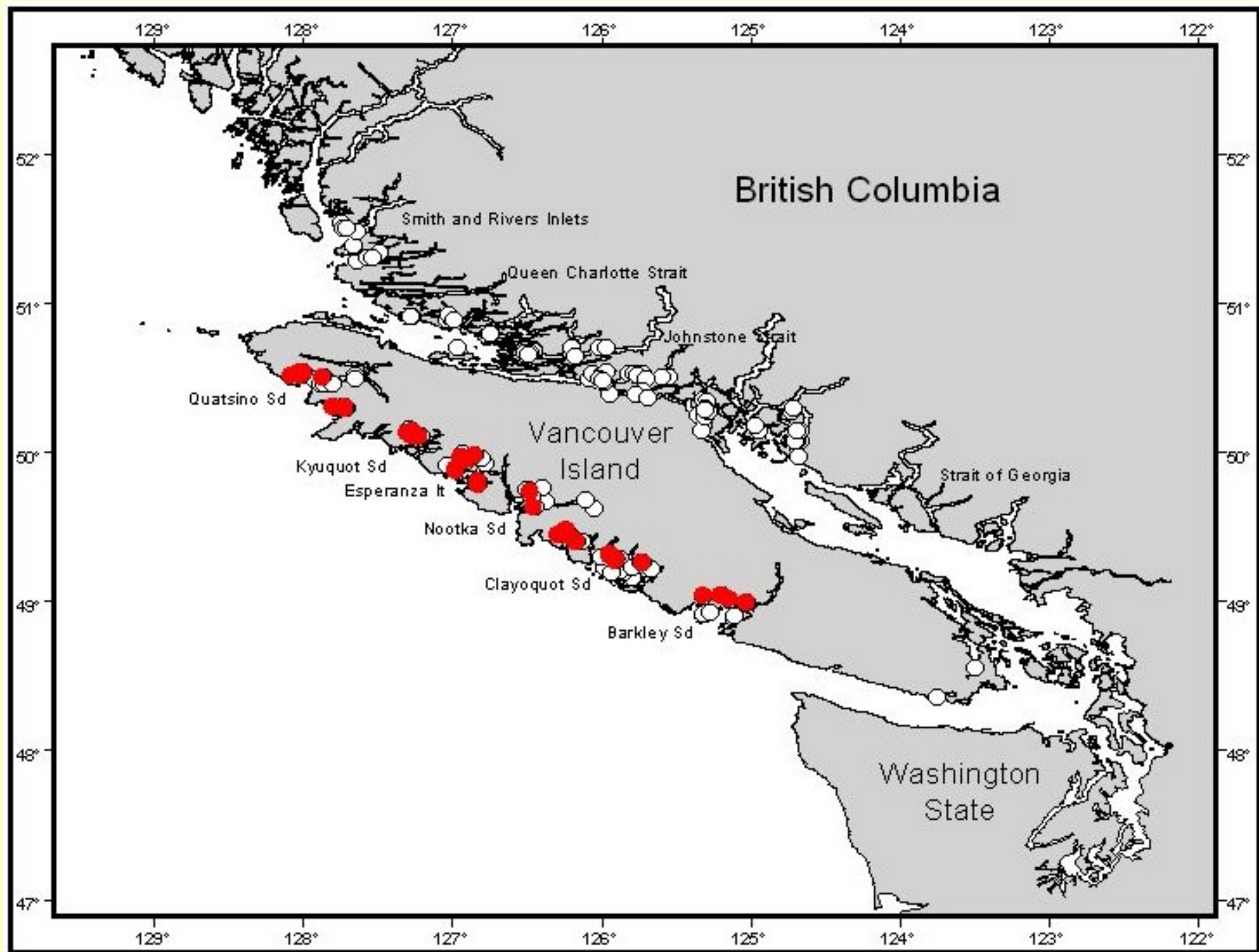


Questions

- *Why have green crabs not entered the inland sea?*
- *Why are green crabs more abundant on the west coast of Vancouver Island than in Washington and Oregon estuaries?*



Strait of Juan de Fuca

- Surface currents flow out >70% of time
 - 90% in summer 55% in winter

Thomson et al. 2007

- Surface water temperatures are cold

Victoria (Race Rocks) and Port Angeles (46039)

- 8 mo < 10°C; 0 mo > 12°C

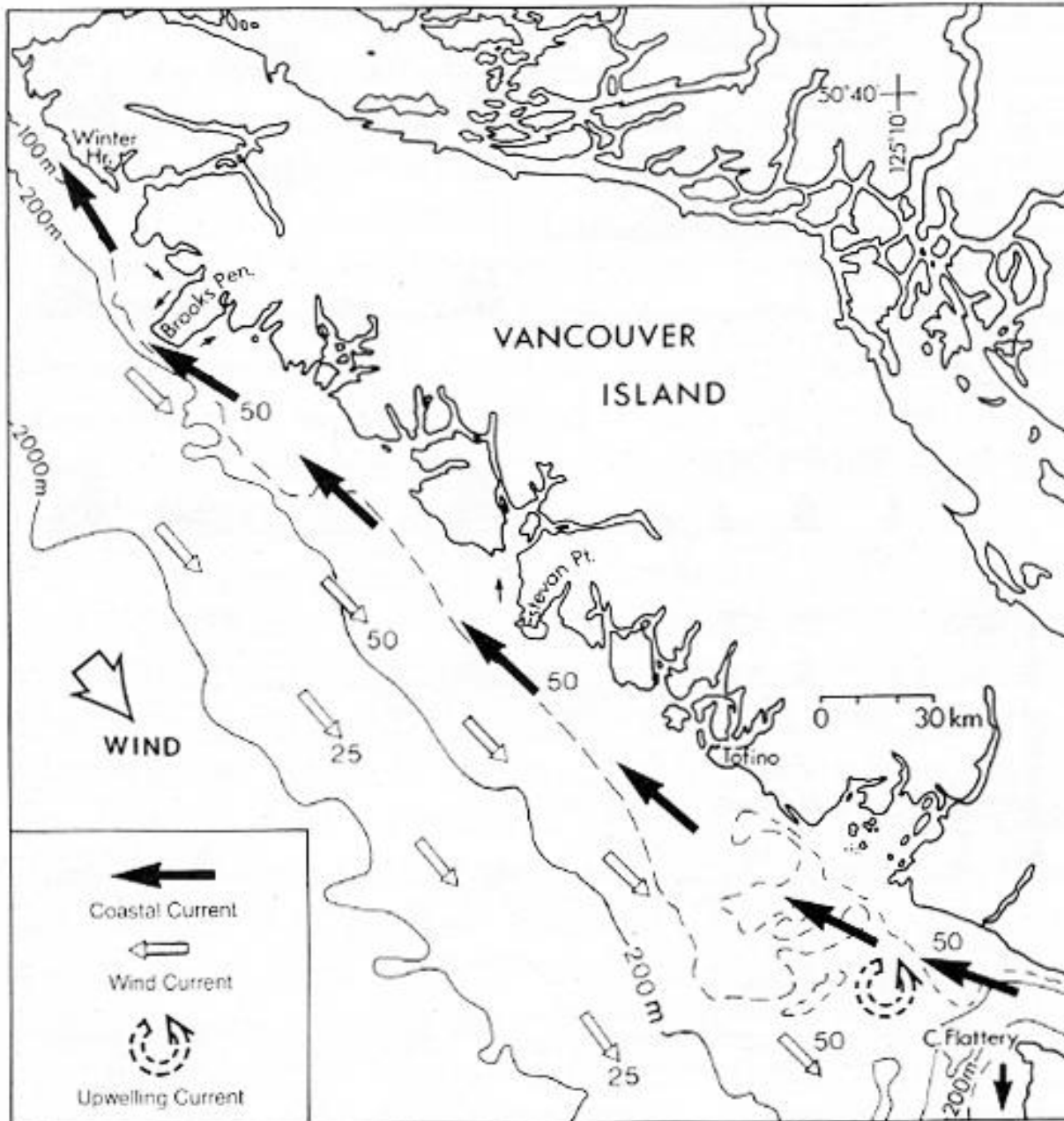
Average Abundance of Green Crabs in 2007

| | # Crabs | # Traps | # crabs per trap/day |
|--|-------------|------------|-------------------------|
| Winter Harbor, BC 2007 Quatsino Sound | 1204 | 96 | 12.5 |
| Pipestem Inlet, BC 2007 Barkley Sound | 1079 | 49 | 22.0 |
| Willapa Bay, WA 2007 | 4 | 318 | 0.01 |
| Netarts Bay, OR 2007 | 35 | 103 | 0.34 |

Surface currents during summer off Vancouver Island

Richard Thomson 1982

Oceanography of the British Columbia coast



Why are green crabs more abundant in BC?

- No large estuaries on the west coast of Vancouver Island.
- Inlets, like Pipestem, warm up early in the year ($>21^{\circ}\text{C}$) and are noted for the production and retention of Japanese oyster larvae.
- Northward and shore-ward currents exist year round.